

# Notes

## Limiting Locke: A Natural Law Justification for the Fair Use Doctrine

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### INTRODUCTION

Focusing a discussion of intellectual property on a 300-year-old text may seem unusual, but John Locke's *Two Treatises of Government*<sup>1</sup> has an uncommon place in American intellectual property theory. Historically, Lockean natural rights informed the Framers' understanding of intellectual property law.<sup>2</sup> Courts also have a long history of using natural law justifications in intellectual property cases.<sup>3</sup> The Lockean perspective has been particularly appealing to theorists because of its ability to justify

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1. JOHN LOCKE, TWO TREATISES OF GOVERNMENT (Peter Laslett ed., Cambridge Univ. Press 1988) (1690). Locke's original purpose was not to provide a comprehensive justification for private property rights but to refute Sir Robert Filmer's opposing theory in *Patriarcha* that all property rights were contingent on the king, who inherited them from Adam. JOHN LOCKE, THE FIRST TREATISE OF GOVERNMENT, in TWO TREATISES OF GOVERNMENT, *supra*, §§ 1-6; JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT, in TWO TREATISES OF GOVERNMENT, *supra*, § 25 [hereinafter LOCKE, SECOND TREATISE]; see also ALAN RYAN, PROPERTY AND POLITICAL THEORY 27-36 (1984) (arguing that Locke's aim was "primarily to sabotage the idea that patriarchal authority had been absolute and that rulers still possessed it"). One of the most enduring portions of Locke's argument, however, has been his support for private property in chapter 5 of the *Second Treatise*.

2. See THE FEDERALIST NO. 43, at 239-40 (James Madison) (Clinton Rossiter ed., 1999); Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), in BASIC WRITINGS OF THOMAS JEFFERSON 708 (Philip S. Foner ed., 1944).

3. Diane Leenheer Zimmerman, *Information as Speech, Information as Goods: Some Thoughts on Marketplaces and the Bill of Rights*, 33 WM. & MARY L. REV. 665, 690-703 (1992) (discussing the strong Lockean influences on early intellectual property law in the United States and England).

widely varying property systems,<sup>4</sup> ranging from expansive communitarianism to subsistence-worker-based capitalism.<sup>5</sup> Although modern intellectual property doctrine has attempted to disavow its association with natural law justifications, some debate the ability of courts to adjudicate intellectual property claims without consulting natural law principles.<sup>6</sup>

Revisiting Locke for a theory of intellectual property has become vital because of two important recent shifts in doctrine and scholarship. First, statutory and doctrinal innovations have continued to expand private intellectual property rights.<sup>7</sup> Second, academics have increasingly advocated the importance of the public domain as a way of limiting the expansion of private property rights.<sup>8</sup> One recent example of the conflict between private intellectual property rights and the public domain is *Eldred v. Ashcroft*,<sup>9</sup> upholding the Sonny Bono Copyright Term Extension Act, which extended the duration of a copyright to the life of the author plus seventy years. While the government's brief advocating for the copyright extension emphasized the need for fairness to authors,<sup>10</sup> the petitioners' brief highlighted that "[p]etitioners are various individuals and businesses that rely upon speech in the public domain for their creative work and livelihood."<sup>11</sup> These arguments were mirrored by amici, including the Recording Industry Association of America (RIAA) on the government's side, which emphasized the importance of "fair compensation of authors,"<sup>12</sup> and a group of fifty-three law professors, who stated that "[a]mici are in

4. See RYAN, *supra* note 1, at 18-22 (describing interpretations of Locke from "modern and revolutionary" to "positively old-fashioned in 1680").

5. Compare JAMES TULLY, A DISCOURSE ON PROPERTY: JOHN LOCKE AND HIS ADVERSARIES 99 (1980) (presenting a communitarian interpretation), with C.B. MACPHERSON, THE POLITICAL THEORY OF POSSESSIVE INDIVIDUALISM: HOBBS TO LOCKE 217, 250 (1962) (presenting a capitalist interpretation).

6. See Jeremy Waldron, *From Authors to Copiers: Individual Rights and Social Values in Intellectual Property*, 68 CHI.-KENT L. REV. 841, 856 (1993); Alfred C. Yen, *Restoring the Natural Law: Copyright as Labor and Possession*, 51 OHIO ST. L.J. 517, 521 (1990) (arguing that because judges seem to incorporate natural law principles, the natural law should not be ignored when enacting intellectual property statutes).

7. See, e.g., Sonny Bono Copyright Term Extension Act of 1998, Pub. L. No. 105-298, 112 Stat. 2827 (extending the length of a copyright to the life of the author plus seventy years); Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809 (1994) (extending patent duration to twenty years).

8. See, e.g., James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 66 LAW & CONTEMP. PROBS. 33 (2003) (contrasting the undesirability of the recent encroachments on the public domain with the economically sensible historical privatization of land).

9. 123 S. Ct. 769 (2003).

10. Brief for Respondent at 30-33, *Eldred* (No. 01-618).

11. Brief for Petitioners at 3, *Eldred* (No. 01-618).

12. Brief of Amici Curiae Recording Industry Association of America at 19, *Eldred* (No. 01-618).

particular concerned about the recent, rapid expansion of copyright scope and duration, at the expense of the public domain."<sup>13</sup>

Scholars have seen Lockean theory as an essential tool in reconciling these arguments because the main thrust of Locke's theory is the reconciliation of strong private property rights with a common of materials available to all. Locke argues that laborers have a private property right in the products of their labor because individuals mix their labor with materials from the common that are free for all to use. The private property right in an individual's labor is mixed into the product of labor, and thus the private property right also attaches to the product of labor. He supports this argument by adding natural law principles that must be followed to maintain exclusive property rights. The natural law principle that has been most commonly considered by scholars is the sufficiency proviso, which requires that the laborer not take too many materials out of the common.

Two substantial criticisms are often directed at Lockean theory. First, scholars argue that even though Locke claims to reconcile a robust common with strong private property rights, his property rights swallow the common.<sup>14</sup> Thus, the object of Lockean theorists, as mirrored in the title of this Note, is often concerned with limiting the scope of the Lockean property right. Second, scholars argue that the sufficiency proviso cannot be fulfilled in a morally compelling way because the common of tangible goods is inherently scarce.

Previous scholarship concerning Lockean theories of property rights in intangible goods has focused on the ability of the nonrivalrous characteristic of intangible goods to eliminate the scarcity problem. This scholarship began with the publication of two influential articles, one by Justin Hughes in 1988<sup>15</sup> and another by Wendy Gordon in 1993,<sup>16</sup> and has been refined in the last decade.<sup>17</sup> A fundamental difference between

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13. Brief of Amici Curiae Intellectual Property Law Professors at 1, *Eldred* (No. 01-618).

14. ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 174-78 (1974).

15. Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287 (1988).

16. Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533 (1993).

17. See PETER DRAHOS, A PHILOSOPHY OF INTELLECTUAL PROPERTY 41-72 (1996); Lawrence C. Becker, *Deserving To Own Intellectual Property*, 68 CHI.-KENT L. REV. 609 (1993); William Fisher, *Theories of Intellectual Property*, in NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY 168 (Stephen R. Munzer ed., 2001); Edwin C. Hettinger, *Justifying Intellectual Property*, 18 PHIL. & PUB. AFF. 31 (1989); Linda J. Lacey, *Of Bread and Roses and Copyrights*, 1989 DUKE L.J. 1532; Adam D. Moore, *Intangible Property: Privacy, Power, and Information Control*, 35 AM. PHIL. Q. 365 (1998) [hereinafter Moore, *Intangible Property*]; Adam D. Moore, *A Lockean Theory of Intellectual Property*, 21 HAMLINE L. REV. 65 (1997) [hereinafter Moore, *Lockean Theory*]; Tom G. Palmer, *Are Patents and Copyrights Morally Justified? The Philosophy of Property Rights and Ideal Objects*, 13 HARV. J.L. & PUB. POL'Y 817 (1990); Joan E. Schaffner, *Patent Preemption UnLocked*, 1995 WIS. L. REV. 1081; Seana Valentine Shiffrin, *Lockean Arguments for Private Intellectual Property*, in NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY, *supra*, at 138; Horacio M. Spector, *An Outline of a Theory Justifying Intellectual Property Rights*, 8 EUR. INTEL. PROP. REV. 270 (1989); Stewart E. Sterk,

tangible goods and intangible goods, however, is that intangible goods are nonrivalrous, which means that they can be used by an infinite number of people in an infinite number of ways without harming the use value of any other person, including the initial producer.<sup>18</sup> Previous scholarship has persuasively argued that because intangible goods are nonrivalrous, the common of intangible goods contains materials that are not subject to a scarcity problem and thus that Lockean theory does not fail when it is applied to intangible goods. Scholars have tended to overemphasize the importance of this claim, however, by conflating the Lockean common with a public domain. The Lockean common contains undeveloped materials, whereas a public domain is composed of developed goods. Although the Lockean common is quite useful for independent production, the nonrivalrous nature of intangible goods means that a public domain can be used to foster incremental innovation, which is much more valuable.

This Note takes a different direction than previous scholarship by focusing on another of Locke's natural law principles, the waste prohibition. The waste prohibition forbids a laborer from wasting products of labor or portions of such products, with the violation resulting in the loss of private property rights in the portion of the product wasted. I define Lockean waste in the following way: Waste occurs where a unit of a product of labor is not put to any use. When scholars have considered the application of the waste prohibition to intangible goods previously, they have arrived at polar conclusions, with some asserting that waste rarely occurs and others claiming that waste always occurs.<sup>19</sup>

The waste prohibition is of negligible importance for tangible goods, but is immensely important when constructing a Lockean theory of intangible goods. The waste prohibition is largely a nonissue for tangible goods because one can exchange money—by definition a nonwasting good—for units of a product of labor that may be prone to waste. Laborers will thus have incentives to sell all the units they possess that they will not use and violations of the waste prohibition will be rare. The nonrivalrous

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*Rhetoric and Reality in Copyright Law*, 94 MICH. L. REV. 1197 (1996); Waldron, *supra* note 6; Lloyd L. Weinreb, *Copyright for Functional Expression*, 111 HARV. L. REV. 1150 (1998); Yen, *supra* note 6; Barbara Friedman, Note, *From Deontology to Dialogue: The Cultural Consequences of Copyright*, 13 CARDOZO ARTS & ENT. L.J. 157 (1994); R. Anthony Reese, Note, *Reflections on the Intellectual Commons: Two Perspectives on Copyright Duration and Reversion*, 47 STAN. L. REV. 707 (1995).

These articles often mirror arguments made previously by authors dealing with the application of Lockean theory to tangible goods. See MACPHERSON, *supra* note 5; NOZICK, *supra* note 14; RYAN, *supra* note 1; JEREMY WALDRON, *THE RIGHT TO PRIVATE PROPERTY* (1988).

18. See Paul M. Romer, *Endogenous Technological Change*, 98 J. POL. ECON. S71, S73-S78 (1990) (explaining the attributes of rivalry and nonrivalry).

19. Compare Hughes, *supra* note 15, at 328 (claiming a more narrow potential for violation), with Hettinger, *supra* note 17, at 44-45 (asserting a broad violation of the waste prohibition). In her analysis, Gordon barely considers the waste prohibition. See Gordon, *supra* note 16, at 1550-51.

nature of intangible goods can be characterized as the production of an unlimited number of “intangible units” at the initial creation of any intangible good. Although the limited number of units of a tangible good can usually be converted into nonwasting money, the unlimited number of intangible units suggests that the laborer will not be able or willing to convert all of the intangible units into money whenever any intangible good is produced. The combination of nonconversion and nonuse constitutes a violation of the waste prohibition. As the waste prohibition is enforced through the loss of property rights in the wasted intangible units, the waste prohibition creates what I call a Lockean fair use right. Price discrimination allows greater conversion of intangible units into money but is an imperfect solution due to practical difficulties in attaining perfect price discrimination.

This Note also examines the implications of government regulation on Lockean intellectual property rights and compares a Lockean regime with current U.S. intellectual property doctrine and theory. The establishment of a government allows much more variety in the scope of private property rights under Lockean theory, but the Lockean fair use right binds civil governments in much the same way that it binds individuals in the state of nature. Although the theory and doctrine of copyright fair use shares many characteristics with Lockean fair use, the current U.S. fair use right is more limited than the Lockean right. One example considered in this Note is that strong government support for anticircumvention measures may violate Lockean principles if the ability to police the waste prohibition is not protected. An even larger difference is that there is no coherent patent fair use right in the United States, although such a right would be demanded under a Lockean regime.

This argument will be fleshed out in the remainder of this Note. Part I introduces general Lockean concepts, focusing on the impacts of the nonrivalry of intangible goods on the common and the waste prohibition. Part II applies Lockean concepts in an economic framework, demonstrating a fair use right in a Lockean state of nature. Part III considers the transition of society into a civil government, with its attendant changes in the scope of property rights in intangible goods. Part III also applies the Lockean analysis of this Note to two areas of current intellectual property debate—the anticircumvention provisions in the Digital Millennium Copyright Act (DMCA) and the enforcement of drug patents in developing countries. Part IV concludes.

# I. ELEMENTS OF A LOCKEAN THEORY OF INTELLECTUAL PROPERTY

Though the Earth, and all inferior Creatures be common to all Men, yet every Man has a Property in his own Person. . . . Whatsoever, then, he removes out of the State that Nature hath provided, and left it in, he hath mixed his Labour with, and joyned to it something that is his own, and thereby makes it his Property. . . . For this Labour being the unquestionable Property of the Labourer, no Man but he can have a right to what that is once joyned to, at least where there is enough, and as good left in common for others.<sup>20</sup>

This single paragraph, section 27 in the *Second Treatise of Government*, outlines nearly all of Locke's natural law justification for private property rights. Stated simply, each individual has a property right in her own labor. When the individual combines her labor with materials from the common, this property right extends to the items she has removed from the common due to the mixing of her property-laden labor with the items.<sup>21</sup> This individual may continue to remove items from the common so

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20. LOCKE, *SECOND TREATISE*, *supra* note 1, § 27.

21. Scholars have described the normative appeal of Locke's labor-mixing argument in the following way. Hughes finds that Locke has "immediate, intuitive appeal: it seems as though people do work to produce ideas and that the value of these ideas . . . depends solely upon the individual's mental 'work.'" Hughes, *supra* note 15, at 300. Lloyd Weinreb adds that this intuition is stronger for intangible goods because creation is "more plainly and completely the product of the author's labor." Weinreb, *supra* note 17, at 1222.

There are a number of interpretations supporting the Lockean labor concept of which I will briefly describe four. See Fisher, *supra* note 17, at 184-85 (describing six Lockean arguments to justify private ownership). First, Locke relies heavily on the commands of God to justify the concepts of his natural law theory. See RYAN, *supra* note 1, at 25-32 (describing Locke's theistic justifications for natural law principles). Second, Adam Moore argues that the combination of labor and the sufficiency proviso creates a "Pareto-based" moral principle: Once an individual expends labor, she has a "weak presumptive claim" to the work that turns into a strong exclusionary right if the sufficiency proviso is fulfilled. Moore, *Intangible Property*, *supra* note 17, at 368-70. Third, Hughes suggests that Lockean theory may be premised on an "avoidance" view of labor. Hughes, *supra* note 15, at 302-05. He then describes normative and instrumental arguments supporting this view. The normative argument states that the "unpleasantness of labor should be rewarded with property," whereas the instrumental argument rewards labor with property "because people must be motivated to perform labor." *Id.* at 303. The normative argument can be used to support a natural law right, whereas the instrumental argument is framed as a utilitarian argument. Cf. ALAN RYAN, *PROPERTY* 69 (1987) ("The point of thinking in proprietary terms is to avoid utilitarian considerations, not to succumb to them."). Fourth, Robert Nozick is most famous for emphasizing a libertarian theory of rights. NOZICK, *supra* note 14, at 333-34. This justification shares much with the theistic conception, but relies on each individual's ownership of himself (rather than ownership by God) to provide the initial justification for property rights.

For purposes of this Note, I assume that labor mixing is coherent and sufficient to justify the private property right that Locke suggests, although numerous scholars have offered various counterarguments against basing private property rights on one's labor. First, in a somewhat

long as she adheres to three independent conditions: the no harm principle, the independent production principle, and the waste prohibition.

First, the natural law broadly prohibits an actor from harming another in his "Life, Health, . . . [or] Possessions."<sup>22</sup> Rather than examining the "no harm" principle in the abstract, however, Locke narrowed it to a discussion of two specific provisos: the sufficiency proviso and the taking prohibition.<sup>23</sup> The sufficiency proviso requires the laborer to leave "enough, and as good" for others to take from the common as well.<sup>24</sup> The sufficiency proviso also lends the theory much of its normative appeal because the laborer who asserts a property right but "leaves as much as another can make use of, does as good as take nothing at all"<sup>25</sup> from the common. The taking prohibition proscribes another from taking a good that a laborer has removed from the common.<sup>26</sup> In order to violate the taking prohibition, an

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complicated argument, Jeremy Waldron contends that the idea of labor mixing itself is incoherent. See WALDRON, *supra* note 17, at 184-89. Second, scholars debate about what amount of labor and how much mixing is required to create a property right. Edwin Hettinger is content with a property right based on a minimal amount of labor and labor mixing. See Hettinger, *supra* note 17, at 37. Nozick argues that a minimal amount of labor will be insufficient to justify a property right, suggesting that if someone labors on the sea by dumping a single can of tomato juice in it, he hasn't gained a property right in the sea but has "foolishly dissipated" his tomato juice. NOZICK, *supra* note 14, at 174-75. Alan Ryan approaches this concern from the mixing perspective, arguing that harvesting an apple provides the laborer a right in the apple and not the tree from which it was plucked. RYAN, *supra* note 1, at 32-35. Third, labor mixing does not necessarily justify a right to the whole value of the good, as opposed to the value related to the effort expended. See WALDRON, *supra* note 17, at 205; see also Reese, *supra* note 17, at 714-15 (setting a "fair return on investment" as the appropriate scope). Fourth, postmodern theories describing the deconstruction of the author undermine the ability to assert author-based entitlements and, therefore, also undermine the ability to rely on an author's labor to justify a property right. See Waldron, *supra* note 6, at 878-79. Finally, if one follows Hughes's avoidance theory as the true normative justification for labor providing a property right, enjoyable labor might not be rewarded with a property right. See Hughes, *supra* note 15, at 302-04, 313-14 (describing arguments that enjoyable labor should not be rewarded with a property right and finding that these arguments justify the idea-expression dichotomy in copyright law).

22. LOCKE, SECOND TREATISE, *supra* note 1, § 6.

23. Cf. RYAN, *supra* note 21, at 64 (explaining that a theory of natural rights begins in a minimal way, but must be supplemented by case-by-case interpretations of what the no harm principle means).

24. LOCKE, SECOND TREATISE, *supra* note 1, § 27. Scholars disagree on the appropriate interpretation of Locke's sufficiency proviso. Compare Hughes, *supra* note 15, at 297 (strong sufficiency proviso), with WALDRON, *supra* note 17, at 210-11 (weak sufficiency proviso).

25. LOCKE, SECOND TREATISE, *supra* note 1, § 33; Gordon, *supra* note 16, at 1565 (stating that the sufficiency proviso "serves as Locke's bedrock response to the complaints of the nonpropertyed"); Hughes, *supra* note 15, at 297-98 (arguing that the sufficiency proviso "protects Locke's labor justification from any attacks"). A recent interpretation of Locke focuses on the command to make full use of God's grant of the commons and finds that the inherent characteristics of intangible goods require that no property rights be allowed in order to make full use of the initial common. Shiffrin, *supra* note 17, at 144, 151-53, 166-67.

26. LOCKE, SECOND TREATISE, *supra* note 1, §§ 32-34; Gordon, *supra* note 16, at 1543 (describing the taking prohibition as a duty not to interfere). Waldron's deconstruction-of-the-author argument may suggest that users can never actually take a work. Because *Hamlet* is "in effect rewritten or reconstructed every time it is read," people are not merely taking but are coauthors. See Waldron, *supra* note 6, at 878. This argument seems limited to a person's

actor must not only take a good, but this taking must also harm the other party.<sup>27</sup> Consensual trades and the giving of gifts do not violate the taking prohibition.<sup>28</sup>

Second is the right to independent production, which Locke explicitly describes, stating, "[T]hough Men had a Right to appropriate, by their Labour . . . [y]et this could not be [so] much, nor to the Prejudice of others . . . who would use the same Industry."<sup>29</sup> The ability to independently produce a good is restricted when the sufficiency proviso is violated or when the ability to labor is controlled.<sup>30</sup> In order to claim a property right in the state of nature, therefore, individuals must not violate the sufficiency proviso or control the ability of another to labor.<sup>31</sup> Finally, Lockean theory prohibits the waste of goods removed from the common. The waste prohibition will be considered in detail throughout this Note.

Locke relates these property-creating elements to three societal arrangements, which represent a rough progression in the development of property rights and are legitimated by consent and continued adherence to the natural law.<sup>32</sup> Locke describes a "State of Nature," which he then divides into a state of nature before trade is introduced and one after trade is established.<sup>33</sup> Locke's third societal arrangement envisions civil government regulation of property.<sup>34</sup> To move from the initial state of nature to one incorporating a trade system requires the consent of the

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relationship to the intangible good itself because it would be much harder to argue that a person cannot take a tangible embodiment of an intangible good, for example through stealing a CD.

27. If the taking prohibition absolutely barred taking without regard to the harm to the owner, the waste prohibition could not be enforced in the state of nature. Additionally, independent production is not only permitted but protected even though it harms the owner's competitive advantage. Independent production does not violate the taking prohibition because an independent producer harms but does not take.

28. LOCKE, SECOND TREATISE, *supra* note 1, §§ 46-48; *see also id.* §§ 17-19 (prohibiting coerced action).

29. *Id.* § 37. The independent production principle is strengthened by Locke's views on equality in the state of nature. *See id.* § 4.

30. Compare NOZICK, *supra* note 14, at 178-82 (focusing on the sufficiency proviso's implications for independent production), and Gordon, *supra* note 16, at 1582 (same), with Moore, *Intangible Property*, *supra* note 17, at 367-71 (tying the right to independently create to the importance of personal autonomy in Lockean theory), Palmer, *supra* note 17, at 829-35 (arguing against intellectual property rights as a "restriction on the liberty of everyone"), and Sterk, *supra* note 17, at 1234-35 (discussing the importance of freedom of action).

31. LOCKE, SECOND TREATISE, *supra* note 1, §§ 27, 33-37.

32. *Id.* § 135; MACPHERSON, *supra* note 5, at 210-11; RYAN, *supra* note 21, at 62; WALDRON, *supra* note 17, at 163.

33. LOCKE, SECOND TREATISE, *supra* note 1, §§ 4-6, 47-51.

34. *Id.* §§ 77-243.



trading parties and the consent of society to introduce money.<sup>35</sup> Specific consent by individuals is required to transition into a civil government.<sup>36</sup>

Scholars have debated the importance and logical coherence of the Lockean elements throughout the centuries, largely concluding that Lockean theory is either inapplicable or morally unpersuasive. The most damning arguments for Lockean theory have generally centered on Locke's sufficiency proviso. If the proviso is interpreted strongly to mean that the laborer must leave for the next laborer exactly the same opportunity to appropriate from the common, any scarcity in the common will cause Lockean theory to fail in its effort to justify property rights.<sup>37</sup> It is not difficult, therefore, to demonstrate that Lockean theory fails for tangible goods because scarcity is an inherent quality of tangible goods.<sup>38</sup> The sufficiency proviso has also been interpreted in two weak ways, each of which robs the theory of its moral appeal. The first interpretation narrows the scope of the common; the second narrows the group of persons who have access to the common. First, the scope of the enough-and-as-good requirement is narrowed to a level of subsistence.<sup>39</sup> Thus, weak sufficiency does not provide a right to use of the common, but merely provides a right to use whatever has not yet been appropriated from the common so long as all laborers can at least maintain subsistence.<sup>40</sup> Second, C.B. MacPherson has argued that Locke actually intended to narrow the group of people to

35. See *id.* §§ 46-50. But see WALDRON, *supra* note 17, at 224-25 (arguing against the need for societal consent to the money system).

36. LOCKE, SECOND TREATISE, *supra* note 1, § 14 (stating that the consent required for trade is insufficient to establish a civil government); *id.* §§ 15, 22, 95 (requiring the individual's "own Consent" to move to civil government).

37. In the ongoing debate between Filmer and Locke, Filmer argued that private property rights cannot be created when a strong no harm requirement is combined with a scarce common for tangible goods. See RYAN, *supra* note 1, at 16-17. Either the no harm proviso would be violated or the people "must sit back and starve." WALDRON, *supra* note 17, at 212-13. Locke put forth three arguments in an unsuccessful attempt to support a theory incorporating the strong sufficiency proviso. First, Locke introduced a subsistence proviso, stating that an individual has a right to subsistence that transcends others' rights to property removed from the common. LOCKE, SECOND TREATISE, *supra* note 1, § 25. Second, in America (at least in 1689) and during other periods of history, land was so abundant as compared to the number of people that even a strong sufficiency proviso would be upheld. *Id.* §§ 36-38. But see WALDRON, *supra* note 17, at 214 (arguing that property acquired through initial appropriation may violate the right for later persons to appropriate). Third, Locke argued that the people can bind themselves together through common consent in a civil government, where they can divide up the common. LOCKE, SECOND TREATISE, *supra* note 1, §§ 2-3. Unfortunately, these arguments fail to provide a morally compelling justification because they merely allow private ownership in historical times, provide a subsistence right in the modern era, or eliminate the natural law justification for private property rights independent of a civil government altogether.

38. It is in this situation that Lockean theory becomes subject to Ryan's objection that it "goes terribly wrong when applied to any goods whose supply cannot be expanded indefinitely." RYAN, *supra* note 21, at 69.

39. See WALDRON, *supra* note 17, at 153-57.

40. Under this interpretation, Locke's theory becomes a "First Labour" theory. *Id.* at 173-76.

whom the sufficiency proviso applies.<sup>41</sup> MacPherson claims that members of the laboring class were not seen as full members of society and therefore they could be ignored when considering the sufficiency proviso. To sum up, Lockean theory applied to tangible goods is thus ineffective under a strong interpretation of the sufficiency proviso and morally unappealing under a weak interpretation of the sufficiency proviso.

*A. Fundamental Differences Between Tangible and Intangible Goods*

Fundamental differences between tangible and intangible goods have significant ramifications for the scope of private property rights justified by Lockean theories of property. Consider three types of goods: tangible goods, intangible goods, and tangible embodiments of intangible goods. The first difference is in the physical or nonphysical nature of the good. Tangible goods are composed of, and defined by reference to, tangible, physical materials. At the other extreme, intangible goods are composed of intangible, nonphysical materials and are defined conceptually rather than physically. Tangible embodiments of intangible goods are combinations of tangible and intangible goods, with the tangible good being used to communicate and store the intangible good.

A second difference between tangible goods, intangible goods, and tangible embodiments of intangible goods is the rivalrous or nonrivalrous nature of the goods. As defined by Paul Romer, "A purely rival good has the property that its use by one firm or person precludes its use by another; a purely nonrival good has the property that its use by one firm or person in no way limits its use by another."<sup>42</sup> Due to their physical nature, both tangible goods and tangible embodiments of intangible goods are rivalrous and thus can only be used by one person at a time. Intangible goods, however, are nonrivalrous, which means that at the same time different people may use the same intangible good in the same way or in different ways without affecting any other person's ability to use the intangible good.

A third difference is that only intangible goods may be obtained without harming the original holder's use value in the good. Tangible goods may be obtained in one of two ways: independent production or acquiring a tangible good from someone else. Intangible goods may also be obtained in those two ways: independent production or acquiring a tangible embodiment of an intangible good from someone else. The acquisition of a tangible good or a tangible embodiment of an intangible good from someone else deprives the initial holder of the use of that good. Intangible goods are different, however, in that an individual may make a copy of the

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41. See MACPHERSON, *supra* note 5, at 222-24, 247.

42. Romer, *supra* note 18, at S73-S74.

intangible good using her own materials to create the tangible embodiment without depriving the initial holder of his use value in the good.<sup>43</sup>

These characteristics make intangible goods at once unlimited and singular. There are three ways in which an intangible good has unlimited qualities. First, a single intangible good may be used by an unlimited number of people at the same time. Second, an intangible good may be used in an unlimited number of ways at the same time. Third, once an intangible good has been created, it need never be produced again but can be copied. The initial productive labor is therefore expandable without limit. An intangible good is also inherently singular; each individual can have multiple tangible copies but can have only one unit of a single intangible good. Suppose one person has ten apples and ten copies of the movie *Gladiator*. If asked the question "Do you have an apple?" the person could reply "Yes. I have ten apples." If asked the question "Do you have the movie *Gladiator*?" the person could reply "Yes. I have ten copies of the movie *Gladiator*." The person could not, however, reply that he has ten copies of an apple or that he has ten movies called "*Gladiator*." The inability to state that one has ten movies called "*Gladiator*" shows the singularity of intangible goods in that each individual may only have one unit of an intangible good but may have multiple tangible embodiments of an intangible good, each of which is a "copy" of the others. Intangible goods are therefore quantified by their relation to individuals, but tangible embodiments of intangible goods are quantified by the number of physical copies.

The unlimited and singular characteristics of intangible goods can be modeled as a multidimensional space. I will consider two dimensions, the first of which is the unlimited number of potential users. The second dimension is the unlimited number of uses of the intangible good. Although other dimensions could also be considered,<sup>44</sup> each set of coordinates will define an "intangible unit" in this Note. The infinitely expandable initial productive labor also means that the whole intangible good space—the sum of the unlimited number of intangible units—is formed at the initial creation of an intangible good. Copying the intangible goods into tangible embodiments of intangible goods is the only labor that remains after the initial creation; independent production is not necessary.

Although intangible goods have always been nonrival, digital technology and the Internet have changed the ability to conceptualize the unlimited nature of intangible goods. First, use of the digital medium makes tangible embodiments of intangible goods much less tangible. John Perry

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43. The initial holder of the intangible good may also make a copy, creating a tangible embodiment that she can convey to others.

44. An example of such an additional dimension would be time.

Barlow has argued that intangible goods in an Internet era are like wine without bottles, i.e., that tangible embodiments are no longer necessary, but that people can transmit “pure thought or something very much like thought: voltage conditions darting around the Net at the speed of light.”<sup>45</sup> Second, it is also easier to envision an unlimited number of intangible units because it is not difficult to imagine a single copy of a popular song quickly multiplying into a million copies through the use of file-sharing programs at virtually no cost. Finally, the digital medium shows the high “plasticity” of intangible goods, which refers to the ability to use an intangible good in any number of adaptive ways.<sup>46</sup>

The conception of nonrivalry employed in this Note will be relatively thin, thereby avoiding many philosophical debates on the concept of the intangible good. I will assume that the intangible good can be defined independently of any human who possesses it.<sup>47</sup> An example of such a fungible intangible good might be a mathematical formula, whereas a Rorschach inkblot test is a paradigm example of an intangible good that is highly dependent on its relationship to specific individuals. Additionally, a thicker conception of intangible goods might include the requirement of some effort on the part of the recipient in order for an intangible unit to be created and transferred.<sup>48</sup> However, because this requirement does not influence the conclusions from the analysis in this Note, this thicker conception will not be considered.<sup>49</sup>

### B. *The Utility of a Lockean Common of Intangible Goods*

Locke’s common of tangible goods consists of undeveloped tangible materials that are available to all and created by the “spontaneous hand of Nature.”<sup>50</sup> Locke characterizes the undeveloped materials in the common as

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45. John Perry Barlow, *Selling Wine Without Bottles: The Economy of Mind on the Global Net*, at [http://www.eff.org/IP/idea\\_economy.article](http://www.eff.org/IP/idea_economy.article) (last visited Nov. 12, 2002) (highlighting that “[d]igital technology is detaching information from the physical plane”).

46. Pamela Samuelson, *Copyright, Digital Data, and Fair Use in Digital Networked Environments*, in *THE ELECTRONIC SUPERHIGHWAY: THE SHAPE OF TECHNOLOGY AND LAW TO COME* 117, 121-22 (Ejan Mackaay et al. eds., 1995).

47. Philosophical debates associated with the concept of an author are one example of where this assumption might not hold for all intangible goods. See, e.g., Waldron, *supra* note 6, at 878 (arguing that deconstruction-of-the-author theories suggest that intangible goods aren’t fungible across different people).

48. For example, if the intangible good is a scientific concept, such as the law of gravity, a thicker conception might posit that the intangible good has not been transferred unless the user of the good actually understands the concept.

49. If one considers a transaction between a seller and a buyer of an intangible good, the understanding requirement only adds costs to the buyer’s side; it does not create an additional seller-side expense. Thus, the marginal cost of distributing these partially completed intangible goods is still zero, and the analysis of the Note holds.

50. See LOCKE, *SECOND TREATISE*, *supra* note 1, §§ 25-26, 34-36, 47-48.

“unassisted Nature,”<sup>51</sup> which have little immediate value but can be greatly enhanced in value through labor.<sup>52</sup> Examples of undeveloped materials in the common include land, animals, and wild fruit.<sup>53</sup> The fact that these are tangible goods means that they are rivalrous and that only one individual may use them at a time. Universal access to the common facilitates an “equality of opportunity”<sup>54</sup> to independently produce.

A Lockean “common of intangible goods”<sup>55</sup> differs in important respects from the Lockean common of tangible goods. The most important similarity, however, is that the common of intangible goods also consists only of undeveloped materials that are a product of the spontaneous hand of nature. Just as the common of tangible goods is characterized by Locke as “unassisted nature,” one might characterize the common of intangible goods as “uncomprehended nature.” Although it is difficult and somewhat unnecessary for purposes of this Note to determine what materials are contained in the common of intangible goods, these might include natural facts or mathematical proofs.<sup>56</sup> The most important difference between the common of intangible goods and the common of tangible goods is the nonrivalrous nature of the undeveloped intangible materials in the former. Nonrivalry means that there is infinite allocative capacity of materials contained in the common of intangible goods.<sup>57</sup> The result of the infinite

51. *Id.* § 42.

52. *Id.* § 37 (“For the provisions serving to the support of humane life, produced by one acre of inclosed and cultivated land, are . . . ten times more, than those, which are yielded by an acre of Land, of an equal richnesse, lyeing wast in the common.”).

53. *Id.* §§ 25-26.

54. See Sterk, *supra* note 17, at 1234-35.

55. See Gordon, *supra* note 16, at 1555 (coining this phrase); see also Hughes, *supra* note 15, at 323 (describing a “common of potential ideas”).

56. See Fisher, *supra* note 17, at 186 (discussing materials that might be included in a Lockean common of intangible goods). It might be easier to consider three types of intellectual labor and then work backward to determine whether the underlying materials can be characterized as uncomprehended nature. First, consider the intellectual labor of observing the natural world to obtain facts. Facts produced by observing the natural world certainly seem to be elements of a Lockean common. Second, consider logical reasoning. Explanations of natural phenomena derived by reasoning from known facts may seem to contain an intangible material that is a product of the “spontaneous hand of nature,” but creative thought experiments about phenomena that have never occurred in nature are much less obviously a spontaneous product of nature. Third, one may combine observable facts with logical reasoning to produce what one might call an invention. These three types of labor correlate loosely with Shiffrin’s description of three types of commons, which consist of mere discovery of existing intangible goods, a combination of human uniqueness with the subject matter of intangible goods, and creation *ex nihilo*, i.e., an empty common with human labor alone responsible for the creation of intangible goods. Shiffrin, *supra* note 17, at 158-66.

57. Provisioning refers to producing a good, whereas allocation refers to distributing an existing good to individuals. The common of intangible goods is surely expandable in the allocative sense. See Yochai Benkler, *Coase’s Penguin, or, Linux and The Nature of the Firm*, 112 YALE L.J. 369, 438 (2002) (“Information production entails only a provisioning problem. Because information is nonrival, once it is produced no allocation problem exists.”). A more difficult question is whether the common is infinitely expandable in the provisioning sense, i.e., whether there are an infinite number of potential intangible goods.

allocative capacity of undeveloped intangible goods is a much more robust ability to independently produce.

The emphasis that previous scholars have placed on the common of intangible goods and, by association, on the sufficiency proviso has been misplaced.<sup>58</sup> For example, Hughes noted that “ideas fit Locke’s notion of a ‘common’ better than does physical property” because “the inexhaustibility condition is more satisfied; each idea can be used by an unlimited number of individuals.”<sup>59</sup> As shown above, the nonrivalrous character of the common of intangible goods merely produces a strong ability to independently produce. The ability to independently produce is important, but it is much less important than the potential ability to use already developed intangible goods as inputs in the development of further intangible goods.<sup>60</sup> As examples, the nonrivalrous nature of a mathematical equation describing a physical law is useful not because everyone can figure it out on his or her own, but because everyone can use the law directly after one person has discovered it, and the nonrivalrous nature of books allows them to be used indirectly as inspirations for further works. The potential gains from using previously developed intangible goods in the development of further intangible goods may be larger for different types of intangible goods.<sup>61</sup>

Intellectual property scholars advocate more strongly for a robust public domain than for a Lockean common, but those scholars who have previously considered Lockean theory have largely conflated the two. A regime that would facilitate the use of developed intangible goods as inputs in the production of additional intangible goods is a public domain, which is a set of developed intangible goods that may be freely used by a set of individuals. A public domain is not equivalent to the Lockean common, however, because the Lockean common contains undeveloped materials, whereas a public domain contains developed goods. Gordon’s analysis fails because she conflates the Lockean common with a public domain.<sup>62</sup> Barbara Friedman has described Gordon’s conflation this way: “For Locke, the common property was an inheritance from God . . . . Gordon, by

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58. See, e.g., Gordon, *supra* note 16, at 1563 (emphasizing the Lockean proviso); Sterk, *supra* note 17, at 1235 (same).

59. Hughes, *supra* note 15, at 315.

60. See generally Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29 (1991) (analyzing the importance of previous innovation on the scope of patent protection).

61. See Julie E. Cohen & Mark A. Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CAL. L. REV. 1, 39-42 (2001) (arguing that the software industry is especially characterized by the reuse of previously developed code).

62. See Gordon, *supra* note 16, at 1559; see also Schaffner, *supra* note 17, at 1094, 1106-10.

contrast, in speaking of culture as a common of intangibles, is referring to works and ideas that are manifestly the product of human labor.”<sup>63</sup>

To summarize, the nonrivalrous nature of intangible goods creates a robust common that can be used for independent production, but this common does not include intangible goods developed through human effort. As we shall see in the next Section, however, the nonrivalrous nature of intangible goods has important ramifications for Locke’s waste prohibition, which does provide access to developed intangible goods.<sup>64</sup>

### C. *The Primacy of the Waste Prohibition*

Locke describes the waste prohibition as follows:

Nothing was made by God for Man to spoil or destroy.

. . . .

. . . [H]e who gathered as much of the wild Fruit . . . by placing any of his Labor on them, did thereby acquire a Propriety in them: but if they perished, in his Possession, without their due use . . . he offended against the common Law of Nature, and was liable to be punished . . . .

The same measures governed the Possession of Land too . . . . [I]f either the Grass of his Inclosure rotted on the Ground, or the Fruit of his planting perished without gathering, and laying up, this part of the Earth, notwithstanding his Inclosure, was still to be looked on as Waste, and might be the Possession of any other.

. . . .

. . . The exceeding of the bounds of his just Property [does not lie] in the largeness of his Possession, but the perishing of any thing uselessly in it.<sup>65</sup>

Various justifications for the waste prohibition have been posited. The only justification independent of the no harm principle, and the one that I

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63. Friedman, *supra* note 17, at 166. Gordon claims that everyone has a Lockean natural right to the public domain, in which she includes “creations whose period of protection has expired.” Gordon, *supra* note 16, at 1559. Her analysis conflates actions available under a civil government with those available in the state of nature because expiration of property rights in unabandoned property requires a forced taking, which only a government can legitimate.

64. The transition to civil government establishes the ability to create a public domain. See *infra* notes 156-159 and accompanying text.

65. LOCKE, SECOND TREATISE, *supra* note 1, §§ 31, 37-38, 46; see also WALDRON, *supra* note 17, at 161 (arguing that waste amounts to abandonment of the property).

adopt for this Note, is that the waste prohibition is an objective moral criterion, i.e., waste is wrong, or, in Lockean terms, "Nothing was made by God for Man to spoil or destroy." Alan Ryan claims that this independent justification for the waste prohibition was Locke's primary intention.<sup>66</sup> Compelling moral support for this interpretation can be found in the patent drug debate that is discussed in more detail in Subsection III.C.2. Two additional justifications, however, can be gathered from Locke's discussion. First, the waste prohibition seems to recognize a scarcity of resources, as Locke argues that the waste prohibition prevents a person from "ingross[ing] as much as he will."<sup>67</sup> Second, wasted goods harm the laborer herself because she has wasted her labor that was mixed into the good.<sup>68</sup> These additional justifications will not be considered in this Note; the first because it does not apply to a common of intangible goods, and the second because the no harm principle can be largely alienated from the individual in a transition to a civil government, but the objective moral criterion remains binding even after a transition.

The waste prohibition is violated if the laborer does not take advantage of the use value that he has added through his labor for both easily spoilable and relatively nonspoilable goods. First, the individual may allow a good prone to spoil, such as wild fruit, to rot in his possession. Second, the individual may waste a good that is not prone to spoil, such as land, if he does not take advantage of the use value that he has added through his labor. The second type of waste can be discerned from the above quotation in that it is not only the grass or the fruit but also the land that is lost when the products of labor are not put to their due use. The use value may be directly related to the property, such as the consumptive value of owned fruit, or it may be indirectly related to the property, such as the use value of crops grown on owned land.

I posit the following definition of waste under Lockean theory: Waste occurs where a unit of a product of labor is not put to any use. This definition focuses on Locke's concern that goods be put to their due use. The rivalrous nature of tangible goods means that questions of divisibility—i.e., determining what constitutes a unit—will be difficult but important in ascertaining violations of the waste prohibition. For example, allowing one tract of a farmer's land to lie fallow for a time in order to preserve its later productiveness might not violate the waste prohibition, whereas letting some portion of a farmer's harvested crop spoil would violate the waste prohibition. The nonrivalrous nature of intangible goods

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66. RYAN, *supra* note 1, at 37 (finding that the waste prohibition teaches that "things have certain natural and proper uses, such that it would be perverse to use them otherwise").

67. LOCKE, *SECOND TREATISE*, *supra* note 1, § 31.

68. Hughes, *supra* note 15, at 327-28.



means that intangible goods are divisible without limit, with the fundamental unit being the intangible unit defined above.<sup>69</sup>

The penalty associated with a violation of the waste prohibition is the loss of exclusionary property rights in the good, but the prohibition does not create an affirmative duty to prevent waste.<sup>70</sup> If only part of the good is wasted, property rights are only lost for that portion of the good that is wasted.<sup>71</sup> An example is a landowner who harvests ninety percent of the land but is unable to use the remaining ten percent of the crops. The way in which this penalty is enforced will depend on whether the laborer is acting in the state of nature or under a civil government. In the state of nature, enforcement of natural law rights is left up to individuals, or in Locke's words, "in the State of Nature, every one has the Executive Power of the Law of Nature."<sup>72</sup> In the state of nature, therefore, the waste prohibition is enforced by individuals who act in individual self-interest in seeking the property. Although Lockean theory normally forbids individuals from taking the property of another, the enforcement mechanism for the waste prohibition is that the wasted good may "be the Possession of any other."<sup>73</sup>

Just as Locke can claim for private property rights that a person who appropriates from a nonscarce common "does as good as take nothing at all"<sup>74</sup> from the common, an individual who polices the waste prohibition can be said to have done as good as take nothing at all from the owner. Only where the laborer obtains no use value from a good must he allow

69. Hughes describes a more limited scope for the applicability of the waste prohibition for intangible goods. *See id.* at 327-29. He argues that, unlike food, ideas are not perishable because they always retain some inherent future value as compared to the absolute loss associated with food spoilage. He also argues that so long as there is no harm to the laborer—i.e., that the labor produced an overall benefit to the laborer—limiting distribution of intangible goods does not violate the waste prohibition. Hughes's analysis is flawed for two important reasons. First, he ignores the nonrivalrous characteristic of intangible goods. Due to the unlimited number of intangible units, limiting the ability of users to obtain copies of the intangible good does result in the kind of absolute loss that he describes for food. Second, waste to the individual is only one of three alternative ways of conceiving of the waste prohibition. He misses the fact that although an individual might be perfectly satisfied with the level of use to which the good has been put, if the intangible units are not put to their due use, a violation of the waste prohibition has occurred.

Hettinger comes closer to the analysis presented in this Note. He argues that placing a nonzero price on intangible goods is "clearly wasteful," stating that "[h]ow wasteful private ownership of intellectual property is depends on how beneficial those products would be to those who are excluded from their use as a result." Hettinger, *supra* note 17, at 44-45. He fails, however, to draw any conclusions from this analysis, to consider the important relationship of money to the waste prohibition, or to recognize the importance of the waste prohibition applying to a portion of the goods rather than the use of the good being partially wasteful.

70. LOCKE, *SECOND TREATISE*, *supra* note 1, §§ 36-37.

71. *See id.* § 46 (arguing that a laborer can avoid violating the waste prohibition by giving "away a part to any body else").

72. *Id.* § 13. Problems associated with self-bias and limited enforcement power will be considered in more detail in Section III.A, which discusses enforceability as a reason to move into a civil government.

73. *Id.* § 38.

74. *Id.* § 33.

others access to it under the waste prohibition. Conversely, if the laborer receives no use value from the good, another will do no injury to the laborer—and thus, will not violate the taking prohibition—by taking the good.<sup>75</sup> In other words, only where the laborer violates the waste prohibition can another take the good without violating the taking prohibition. Therefore, justified taking can be seen as a natural way to police the waste prohibition.<sup>76</sup>

## II. A LOCKEAN THEORY OF FAIR USE IN THE STATE OF NATURE

Property rights are maintained if one uses the products of labor, but Locke argues that trading a good for money, which I will call “money substitution,” also avoids the waste prohibition. Locke asserts that the invention of money effectively eliminates violations of the waste prohibition because perishable goods can be exchanged for nonperishable money.<sup>77</sup> This argument holds so long as Locke’s assumption that laborers are willing and able to limit their production to goods that they can use or sell is plausible, which it is for tangible goods.<sup>78</sup> As this Part will show by applying Locke’s waste prohibition in a modern economic framework,<sup>79</sup> this assumption fails for intangible goods. In fact, a producer of intangible goods acting in her self-interest will purposely violate the waste prohibition. The primary distinction is that a laborer can limit the number of copies of a tangible good, whereas the creation of an intangible good produces an unlimited number of intangible units.

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75. In some cases, the good cannot be taken without harming the owner. Here, the owner’s refusal to allow taking can be seen as avoiding a harm. Thus, it can be argued that he is obtaining some value because a harm is being avoided. Preventing arbitrage may be an example of a reason to prevent copying even where the intangible good is ostensibly being wasted. For a more systematic treatment of these arguments, see *supra* notes 115-116 and accompanying text.

76. For a discussion of situations where the laborer and the enforcers have conflicting natural rights, see *supra* notes 119-120 and accompanying text.

77. LOCKE, *SECOND TREATISE*, *supra* note 1, §§ 46-47 (explaining that money is “some lasting thing that Men might keep without spoiling” as compared to the “greatest part of things really useful to the Life of Man” that are “generally things of short duration”); MACPHERSON, *supra* note 5, at 204 (arguing that the waste limitation “seemed to Locke to be obviously transcended by the introduction of money”). Locke also claims that the introduction of money opens up the world to greater appropriation. LOCKE, *SECOND TREATISE*, *supra* note 1, §§ 48-50. Although Locke is correct to some extent that money acts as a magnifier or release valve, the introduction of money is just one portion of the gains from a market system.

78. Locke’s reliance on both the ability and desire to limit production can be implied from the following statement: “Supposing an Island . . . [w]hat reason could any one have there to enlarge his Possessions beyond the use of his Family, and a plentiful supply to its Consumption . . . ?” LOCKE, *SECOND TREATISE*, *supra* note 1, § 48.

79. The application of Lockean principles in an economic framework does not change the natural rights character of the argument into a utilitarian analysis. Scholars who have similarly applied Lockean principles in a modern economic framework include Nozick and John Stick. See NOZICK, *supra* note 14, at 178-82; John Stick, *Turning Rawls into Nozick and Back Again*, 81 NW. U. L. REV. 363, 396-99 (1987) (considering the implications of the sufficiency proviso primarily on the transfer of tangible goods).

The waste prohibition requires that each unit either be put to some use or sold to retain a property right in the good. In other words, property rights are lost to the extent that the laborer does not achieve “total money substitution,” which I will define as the conversion into money of all units of a product of labor that an individual will not personally use. External factors, including the demand curve for the good, will determine the maximum price that the laborer can charge to achieve total money substitution. External factors also determine whether the laborer is a price taker—meaning that the amount of goods that the laborer offers to sell does not influence the price that the laborer can charge—or, at the other extreme, whether the laborer can act as a monopolist.

This Part will begin by considering only two ideal-type market situations: price taking or monopoly power. Additionally, it will be limited to considering two potential choices by the laborer: how many goods to produce and at what price to sell the goods. Although the analysis in this Note is similar to Locke’s own argument in sections 46 to 51, I set out Locke’s assumptions more explicitly and consider more carefully a laborer’s likely pricing decisions. The assumption that all goods are sold at a single market price is followed in Section II.A but will be relaxed when price discrimination is considered in Section II.B. Enforceability will be assumed throughout this Part, but will be considered in the analysis of Part III. The demand curve for the good will be assumed static and known. I will assume, following Locke, that laborers generally act in their self-interest.<sup>80</sup>

#### A. *Waste-Prohibition-Based Lockean Fair Use*

##### 1. *Nonviolation of the Waste Prohibition in Markets of Tangible Goods*

In a market for a tangible good, the laborer can limit the number of units of a specific good produced and can set the price of the units.<sup>81</sup> Although the laborers are able to set their prices freely, their choice will be influenced by the valuation that individual buyers place on the good. The most common method for analyzing this valuation is the estimation of a

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80. This assumption coheres with the self-interested rationality evident throughout Locke’s treatment. *See, e.g.,* LOCKE, SECOND TREATISE, *supra* note 1, §§ 123-124; *see also* Moore, *Intangible Property*, *supra* note 17, at 369 (describing laborers as “rational project pursuers” with a “wide range of value theories”). This weak rationality requirement does not incorporate the concept of opportunity cost, which would require the laborer not only to produce the optimum amount of a specific good, but would require the laborer to choose the good that would bring her the greatest aggregate wealth.

81. There may be certain constraints on the ability of laborers to limit production of tangible goods. A famous example from literature occurs in *The Grapes of Wrath* where oranges are destroyed in order to keep up the price despite the existence of a “million people hungry.” JOHN STEINBECK, *THE GRAPES OF WRATH* 473-77 (Viking Penguin 1989) (1939).

demand curve, which is an aggregation of the heterogeneous valuations of a specific good by the individual potential buyers. A demand curve does not vary in relation to changes in price but does vary for different goods.<sup>82</sup>

First, consider a laborer who is a price taker. As a price taker, such a laborer may continue to produce goods without considering whether he will violate the waste prohibition. So long as the laborer sells his goods at or below the market price, all the goods will be sold, resulting in total money substitution and no loss of property rights. Within these limits, a laborer acting in his self-interest will continue to produce units until the marginal cost of producing the last unit equals the market price and will set a price equal to, rather than below, the market price.

Second, consider a monopolist laborer. By limiting the number of goods produced, the laborer can charge a higher price and obtain the monopoly rent. Although monopolies are inefficient from a social-economic perspective, they do not violate the Lockean waste prohibition. In common economic analysis, the economic loss associated with monopolistic pricing is called a deadweight loss. As an opportunity cost, this is a real economic loss; however, Locke's waste prohibition does not apply directly to all opportunity costs. For example, one does not violate the waste prohibition by removing too little out of the common. Additionally, no punishment can be justified under Locke's theory if one chooses to gather apples rather than oranges, even if oranges have a higher tradable value.

The preceding analysis showed that for all practical purposes the waste prohibition will never be violated for tangible goods. Although the price at which the laborer sells the good is dependent on external factors such as the demand curve and the type of pricing available to the laborer, laborers acting in their self-interest will have no incentive to produce goods that they do not sell. Laborers may sell at or below the efficient market price if they are price takers and may sell at or below the monopoly rent-maximizing price without violating the waste prohibition.

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82. Factors that may cause a shift in the demand curve include a change in the price of substitutable goods, shifts in tastes, or increased income levels among the potential purchasers. PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *ECONOMICS* 38-42 (15th ed. 1995) (describing demand curve basics). The creation of a robust Lockean fair use right may shift the demand curve downward because a downward move in the price of a substitutable good will create a downward shift in the demand of the original good, and the creation of a vibrant fair use right adds a set of intangible goods that the user can get for free. The magnitude of this shift will depend on the substitutability of the intangible goods, which depends on a variety of factors. On the other hand, some intangible goods might actually become more valuable as the set of goods available to an individual increases. See Benkler, *supra* note 57, at 415-23 (demonstrating that there are increasing returns to scale when the set of available informational resources is increased). This downward shift may influence the profitability of any single intangible good but will not eliminate the existence of low-value users and uses.

## 2. *A Lockean Fair Use in Markets of Intangible Goods*

Recent technological changes have facilitated the ability to imagine a market for an intangible good rather than a market for a tangible embodiment of an intangible good. A paradigm example of a money-based transfer of a tangible embodiment of an intangible good is the purchase of a CD, which includes the purchase of both an intangible unit and a corresponding tangible embodiment. A market for an intangible good, however, would involve trade of only the intangible good. On the Internet, one no longer needs to purchase a CD in order to purchase a song, but a buyer and seller each connected to the Internet can transmit “pure thought or something very much like thought.”<sup>83</sup> Even though individual copies—tangible embodiments—are being traded on the Internet, the conceptual jump to a true market for intangible goods is smaller than it has historically been.

Another important implication of recent technological changes is the decreasing marginal cost of creation and transmission of such goods. The marginal cost of producing an intangible unit is zero, whereas the marginal cost of producing a tangible copy embodied in a CD is some positive amount.<sup>84</sup> The marginal cost of producing an intangible unit is zero because an inherent quality of nonrivalrous goods is that a very large number of intangible units have already been produced. Returning to the Internet example, if the buyer and seller each have access to the Internet, the marginal cost of producing a copy—a tangible embodiment—of the song also approaches zero. Neglecting costs associated with transaction costs, such as collecting payment, a seller incurs virtually no additional cost whether a single person or a million people copy the music.

Applying Locke’s waste prohibition to intangible units also makes changes to baseline framework considerations. First, the determination of how many units must be sold in order to achieve total money substitution is altered. For tangible goods, one must use or sell all units of the good. For intangible goods, there are as many intangible units as there are potential

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83. Barlow, *supra* note 45.

84. Mark Lemley and David McGowan explain:

The “marginal cost” of a new copy of Microsoft Windows is the cost of the disk (a few cents), the labor required to copy it (essentially none), and the cost of the manuals, packaging, and distribution of the box itself to consumers (by far the largest portion). Software distributed on the Internet has *essentially no marginal cost*, as it can be downloaded by consumers on their own time, albeit with some commitment of computer resources by the supplier.

Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 595 n.484 (1998) (emphasis added); see also Robert M. Weiss & Ajay K. Mehrotra, *Online Dynamic Pricing: Efficiency, Equity and the Future of E-Commerce*, 6 VA. J.L. & TECH. 11, ¶ 17 (Summer 2001), at <http://www.vjolt.net/vol6/issue2/v6i2-all-Weiss.html> (finding that the “digital economy is filled with numerous firms defined by a structure of high fixed costs and low marginal costs”).

users, but only a portion of those users will place a nonnegative value on the intangible unit. Although waste occurs whenever an intangible unit is not put to any use, the waste prohibition is enforced by individuals in the state of nature, and no individual who values the good at less than zero will exert effort to obtain a copy. If a property right is defined as the ability to exclude and one is able to exclude all persons who would potentially want to purchase or use the good, then, effectively, no property rights have been lost. Therefore, total money substitution for intangible goods is best defined as all nonnegative demand being fulfilled. Second, a laborer in intangible goods may still choose the price at which to sell, but a laborer cannot limit the number of units of an intangible good that he produces. This is unlike a laborer in tangible goods, who can control whether he makes five cars or ten thousand.

Again consider a price-taking laborer, this time in a market for an intangible good. A laborer's inability to influence the price is primarily due to competition in the market. Competition occurs in a market for a distinct intangible good if a number of people are selling the same good.<sup>85</sup> Competition is more likely to result if the intangible good is not relatively unique—that is, others are easily able to independently produce the good. Assuming negligible transaction costs, as may be achievable on the Internet, the price set in a competitive market for an intangible good will be zero<sup>86</sup> because the marginal cost of producing an additional unit of the nonrivalrous good is zero. Therefore, a competitive market for an intangible good destroys the laborer's profitability. This *ex post* destruction of profitability also removes the *ex ante* incentive to produce the good when viewed from a dynamic perspective.<sup>87</sup>

If the intangible good is relatively unique—difficult to independently produce—the laborer might be able to act as a monopolist. If the laborer can act as a monopolist and set a positive price, she may be able to garner

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85. While not defined as competition, the demand curve, and therefore the price of the good, will also be influenced by the existence of substitutable goods in other markets. See *supra* note 82.

86. See Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in NAT'L BUREAU OF ECON. RESEARCH, *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 614-15 (1962).

87. The argument generally proceeds in the following manner. Unless some kind of a "monopoly" can be obtained for the intangible good, the good will not be *ex post* profitable to the laborer. If the laborer does not anticipate *ex post* rewards, then she will not devote the *ex ante* effort to produce it. Therefore, the intangible good will not be produced in the first instance.

One way in which this problem might be partially solved is to consider competition gradually increasing over time. For example, a laborer might initially be able to demand a monopoly price, which will be dissipated over time as additional market entrants force the price to zero. In such a case, the initial sale of the good will generate money substitution in some finite portion of the units of the intangible good, which may be sufficient to create the necessary *ex ante* incentive to produce. As time goes on, competition will increase until the market price reaches a level at which it is no longer profitable for the laborer to trade in the good.

profits from the venture.<sup>88</sup> However, the establishment of a monopoly price excludes those persons who value the intangible good at above the marginal cost of production but below the price set by the laborer. Such a person will be called a “low-value user” in this Note. As the intangible units have already been produced, the choice to refuse to sell units of the intangible good violates the waste prohibition and results in the loss of property rights in those specific units. This violation can be enforced by the corresponding low-value users.<sup>89</sup> The quantity of this loss coincides with the amount of the deadweight loss described in the previous Section, although unfulfilled demand for intangible goods is more than a mere opportunity cost because the intangible units have already been produced.

The application of these ideal-type pricing mechanisms to intangible goods demonstrates that the goal of a self-interested laborer is not to obtain total market substitution, even at the cost of a loss of property rights in a portion of the units of the intangible good. In fact, in order to gain any revenue in a single-price market, the laborer must violate the waste prohibition. The problems generally associated with monopolies may even be more acute for intangible goods because the loss associated with monopolistic behavior may be higher for intangible goods.<sup>90</sup>

The result of the laborer’s decision not to set the price at zero in order to effectuate total market substitution, reasonable though it may be, creates a fair use right. All those persons who value the good above zero but below the laborer’s price can justifiably copy the good without reimbursing the laborer, although these low-value users must make the copy at their own cost, not the cost of the laborer.<sup>91</sup> Just as the laborer’s actions in producing

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88. In fact, a cost of copying equal to zero suggests that a monopolist might be able to garner significant profits from the sale of an intangible good.

89. Potential purchasers—those who value the good at above the monopoly price—would violate the taking prohibition if they made an illicit copy because they would impose a harm on the laborer: the lost profits. However, taking by low-value users cannot violate the taking prohibition because the laborer will lose no profits from the sale.

90. See Yochai Benkler, *An Unhurried View of Private Ordering in Information Transactions*, 53 VAND. L. REV. 2063, 2066-69 (2000) (citing factors such as high uncertainty, positive externalities, and budget constraints that increase deadweight losses and are often pronounced for intangible goods).

91. The fair use right in turn may influence the ability to determine true valuation because it allows an individual to gain access to the good without actually revealing the level at which the individual values the good. Although economists might be able to predict reasonably accurate demand curves, even where demand has not been explicitly revealed, this aggregate information will not be helpful in determining which specific individuals are low-value users on a case-by-case basis. An underlying concern here is that individuals will then have an incentive to disguise their true valuation. Although this type of system gaming can be cabined into an enforceability concern and saved for Part III, the concern may be more problematic than mere enforceability because an individual’s true valuation might not be knowable except as a revealed preference. If one has the alternative of either paying a price for a good or getting the good for free (through the fair use right), one will “reveal” the fact that one prefers free use. In other words, it may not be that individuals will lie in bad faith about their valuation, but that they will be unable to determine their actual valuation of the intangible good without having to choose between alternatives.

the good create a moral, natural-law-based property right in the good, the laborer's pricing actions may create a moral, natural-law-based fair use right in others. Gordon's conclusion that "[a]voiding 'deadweight loss' is a natural right only if the public has a right to free copying" and that the public "has no such right"<sup>92</sup> is incorrect. First, a laborer has no right to exclude individuals from unused or unsold intangible units because she has no property right in such goods. Therefore, a focus on the public's right may be deceiving because the laborer herself does not have a property right in those intangible units. Second, even if the public as a whole does not have a right to free copying, some individuals within the public, the low-value users, will have a right to enforce the waste prohibition against the property owner.

### 3. *Nonmarketed Intangible Goods and Nonmarketed Uses of Intangible Goods*

Some intangible goods do not directly fit the market model of the preceding Subsection. First, consider intangible goods that are indirectly, not directly, valuable to the laborer. These "enabling intangible goods" are valuable for the way that they enable the production of other goods, intangible or not. A Lockean example of such a good in the waste prohibition context is land harvested for fruit.<sup>93</sup> Other examples of such goods include a chemical process that creates a tangible chemical product, a compression technology used to store a tangible embodiment of intangible digital photographs, and an intangible cast of characters used in a movie sequel. In order to determine the scope of a waste prohibition violation in relation to these enabling intangible goods, one should look at whether the end product is being wasted. If the laborer has a monopoly in the end product, then the waste prohibition will be violated for the underlying enabling good. One reason that these enabling goods might be used to develop monopolies rather than licensing the use of the enabling goods to other producers was described by Kenneth Arrow, who argued that

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Solutions to these two problems are likely to take the form of the methods of price discrimination described in Section II.B. For example, one might develop a postpurchase objective test that measures the amount of time and attention that one devotes to the good, such as how often one listens to the CD. Violations of privacy, however, may prohibit the ability and desirability of using this type of postpurchase value determination. See Julie E. Cohen, *A Right To Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace*, 28 CONN. L. REV. 981 (1996).

92. Gordon, *supra* note 16, at 1549. Others who have argued against a Lockean fair use right have also largely ignored the waste prohibition. See, e.g., Lacey, *supra* note 17, at 1564 (asserting that the fair use doctrine is "totally unjustifiable" because of the "absolutist proposition" required by Lockean property rights, without, however, considering the waste prohibition); Moore, *Lockean Theory*, *supra* note 17, at 98 (arguing, without citing the waste prohibition, that there "should be no mandatory government legislated policy of fair use").

93. LOCKE, SECOND TREATISE, *supra* note 1, § 38.



information will not be purchased until it is known, but if it is known, it cannot be sold.<sup>94</sup> In other words, it may be that some intangible goods cannot be effectively sold in a market. As compared to directly copying the intangible good, enforcement of the waste prohibition for enabling intangible goods will be accomplished through what is commonly called reverse engineering. In other words, a user will examine the end product in an attempt to determine the process by which it was developed—that is, the underlying enabling intangible good.

Second, there will be specific intangible goods or specific uses of intangible goods<sup>95</sup> that are not valuable enough to make trading in the good worthwhile, either in a market or through direct contracting.<sup>96</sup> As the good or use of the good is not marketed at all, the user would maintain a full fair use right to enforce the waste prohibition. A common example of an intangible good for which there is not likely to be enough aggregate demand to justify negotiating between laborers and users is an out-of-print book. Analogously, there will also be certain uses for which there is such little aggregate demand that negotiation costs would actually be greater than the value of the use. These will be called “low-value uses” in this Note. An example of a low-value use might be the use of a poster as part of the background in a theatrical set.<sup>97</sup>

#### B. *Perfect Price Discrimination as a Means of Eliminating Fair Use*

A laborer may be able to limit the scope of the fair use right through price discrimination. Price discrimination occurs when the seller charges “different prices to buyers when the price difference cannot be explained by a cost difference in supplying” the good.<sup>98</sup> Although the social and economic merits of price discrimination for intangible goods are contested,<sup>99</sup> there are definite implications for the Lockean waste

94. Arrow, *supra* note 86, at 609, 614-16.

95. Property rights to use intangible goods in specific ways can be individually marketed. A laborer may market the ability to use an intangible good in one way at a certain price and another way at a different price. For example, the owner of a Broadway musical might sell the rights to listen to the music on a CD for a relatively small amount and sell the rights to perform the musical for a relatively large amount.

96. Although the impetus is on the laborer to offer the good for sale in order to avoid violating the waste prohibition, a user who values the good at a high enough level to offset negotiation costs may be under a duty to self-identify as a potential purchaser of a relatively low-value use.

97. *But cf.* Ringgold v. Black Entm’t Television, Inc., 126 F.3d 70 (2d Cir. 1997) (holding that the use of a poster of a quilt as set decoration on a television program did not qualify as fair use).

98. Michael J. Meurer, *Copyright Law and Price Discrimination*, 23 CARDOZO L. REV. 55, 58 (2001). For a detailed analysis of price discrimination, see JEAN TIROLE, *THE THEORY OF INDUSTRIAL ORGANIZATION* 133-68 (1988).

99. Compare Meurer, *supra* note 98, at 90-102 (describing distributional and allocative efficiency problems with price discrimination), with William W. Fisher III, *Property and Contract*

prohibition. Perfect price discrimination is defined as the case where the seller sets an individual price for each buyer that is equal to the buyer's valuation of the good. In this situation, each buyer who values the good at a positive amount will purchase the good, resulting in total money substitution, no violation of the waste prohibition, and no free use by individuals (except perhaps those individuals who value the good at exactly zero).<sup>100</sup> Yochai Benkler argues, however, that in practice all price discrimination will be "lumpy."<sup>101</sup> Imperfect price discrimination, where some but not all of the demand is satisfied, may lower the amount of the waste-prohibition violation but does not eliminate it entirely.

In order to price-discriminate, a seller must be able to link different prices to buyers with different valuations.<sup>102</sup> Economists have classified methodologies into three categories: first-, second-, and third-degree price discrimination.<sup>103</sup> First-degree price discrimination is the ideal case where the value of the buyer is known without effort—i.e., under the assumption of perfect information. First-degree price discrimination is also equated with perfect price discrimination.<sup>104</sup>

Second- and third-degree price discrimination correlate objective factors with a buyer's valuation and therefore result in imperfect price discrimination. Second-degree price discrimination uses product differentiation to sort users with different valuations. Three objective product distinctions are common when performing second-degree price discrimination: time, quantity, and quality. A seller who releases an initial high-cost version of a good, such as the sale of CDs in a music store, followed by subsequent low-cost distribution, such as the sale of CDs in a music club, uses time to accomplish second-degree price discrimination. A seller who controls the number of times a user may use the good, such as admission to a movie, accomplishes second-degree price discrimination through quantity. Finally, a seller might also offer lower-quality goods to users who value the good less.

Third-degree price discrimination employs objective buyer characteristics to differentiate potential valuation. Characteristics of

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on the Internet, 73 CHI.-KENT L. REV. 1203, 1234-40 (1998) (claiming distributional and allocative efficiency gains from price discrimination).

100. Although under perfect price discrimination the seller gets to appropriate all of the surplus, an alternate pricing scheme could achieve total money substitution. Consider an example with three potential buyers: *A* values the good at  $V_a$ , *B* values the good at  $V_b$ , and *C* values the good at  $V_c$ . Assume that the marginal cost of production is the same for these three goods and is equal to  $c$ . If  $p_n$  is the price of the good offered to each user, total money substitution will result so long as  $c < p_a < V_a$ ,  $c < p_b < V_b$ , and  $c < p_c < V_c$ , whereas perfect price discrimination demands that  $p_a = V_a$ ,  $p_b = V_b$ , and  $p_c = V_c$ .

101. Benkler, *supra* note 90, at 2072.

102. Other requirements include the existence of market power and the ability to prevent arbitrage. Meurer, *supra* note 98, at 59.

103. See TIROLE, *supra* note 98, at 135; Meurer, *supra* note 98, at 67-75.

104. TIROLE, *supra* note 98, at 135.

individuals or entities that might be relevant in determining their valuation include socioeconomic status, which is likely to correlate roughly with the ability to pay for goods and may itself also be correlated to other objective factors such as student or senior status. The type of use might also indicate differences in valuation, such as differential pricing for commercial, as compared to personal, use of software packages. Additionally, differential valuation may be correlated to some extent with geographical boundaries.

A Lockean waste prohibition perspective on price discrimination yields two results. First, it suggests an inversion of the common relationship between price discrimination and user rights. Michael Meurer argues that the “relationship between [user] rights and price discrimination is simple—broad user rights impede price discrimination.”<sup>105</sup> Under a Lockean analysis, however, it is the choice or the inability to obtain perfect price discrimination that creates the fair use right in the first instance. Second, although first-degree price discrimination will completely fulfill the requirements of the waste prohibition, second- and third-degree price discrimination violate the waste prohibition to some extent due to their lumpiness. Some methods of price discrimination, especially second-degree price discrimination, also violate the waste prohibition to a greater degree. If price discrimination is accomplished through marketing an inferior good, the waste prohibition has been violated as to the difference in quality between the two goods in addition to the violations pertaining to low-value uses and users.

### C. *Culture as a Basis for a Lockean Fair Use Right*

This Section will consider culture as an alternative means of justifying a Lockean fair use right. Lockean theorists, most notably Wendy Gordon, have argued for a Lockean right to cultural fair use.<sup>106</sup> Gordon emphasizes access to a common of intangible goods and the public domain as well as compliance with the strong sufficiency proviso.<sup>107</sup> First, she argues that restricted access to those developed intangible goods that are part of the society’s culture constitutes a harm because culture is a part of the Lockean

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105. Meurer, *supra* note 98, at 61.

106. A postmodern Lockean argument for a right to cultural fair use identifies the public as a collective identity that participates in the authorship of intangible goods. Steven Wilf, *Who Authors Trademarks?*, 17 CARDOZO ARTS & ENT. L.J. 1, 6-10 (1999). *But see* Waldron, *supra* note 6, at 862 (claiming that natural law theory focuses on individuals). In a discussion of trademarks, Steven Wilf emphasizes the dynamic communication between the public and the trademark owner. In order for the trademark to be owned, it must have acquired secondary meaning, defined as recognition by the public. Wilf, *supra*, at 32-36. Therefore, Wilf argues that because the public participates in authoring the trademark, it should be granted a partial natural law property right in the good as a coauthor. *Id.* at 1-6.

107. Gordon, *supra* note 16, at 1563 (“The proviso . . . lies at the center of this Article’s thesis.”).

common.<sup>108</sup> As explained earlier, Gordon's argument fails, however, because she conflates the Lockean common of intangible goods, which is limited to undeveloped intangible goods, with culture, which is composed of developed intangible goods.<sup>109</sup> Second, Gordon argues that a person who independently produces an intangible good may harm another by making that person's holdings less valuable.<sup>110</sup> Given the existence of the independent production right and Locke's explicit allowance for great disparities in talent and wealth, this type of relativistic no harm principle does not cohere with Locke's theory.<sup>111</sup>

A cultural fair use right may be analyzed more appropriately through Locke's removal requirement and by consulting the independent production principle in a different way than Gordon. Locke requires that the laborer remove the good from the common in order to exclude others.<sup>112</sup> Removal of tangible goods in an abundant common consists of (1) physically separating a rivalrous good out of the common and (2) using methods of exclusion to maintain separation. Although physical removal is impossible for intangible goods, one can exclude others by controlling access through secrecy.<sup>113</sup> Finally, the exclusion must be maintained, which can be accomplished, for example, through agreements for postpurchase nondisclosure.<sup>114</sup> Loss of exclusivity may involve several stages, whereby the intangible good progressively becomes less and less secret.<sup>115</sup>

108. *Id.* at 1559, 1562-63, 1593.

109. See *supra* notes 62-63 and accompanying text.

110. Gordon, *supra* note 16, at 1567-68; see also Waldron, *supra* note 6, at 876-82 (arguing that because "we constantly compare ourselves to others," a relative difference in wealth may cause emotional harm).

111. See Sterk, *supra* note 17, at 1234 (describing Lockean theory as an "equality of opportunity theory" rather than a theory of relative equality). A relativistic notion that Locke does use is a comparison between individuals in the state of nature and under civil government. See LOCKE, SECOND TREATISE, *supra* note 1, § 137.

112. LOCKE, SECOND TREATISE, *supra* note 1, § 27. Emphasizing the removal requirements, Robert Bone concludes that natural rights theory is a "formalistic theory of property rights that equates property with factual exclusivity." Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CAL. L. REV. 241, 304 (1998).

113. See Andrew Beckerman-Rodau, *Are Ideas Within the Traditional Definition of Property?: A Jurisprudential Analysis*, 47 ARK. L. REV. 603, 627-31 (1994) ("The requirement that a trade secret must not be generally known is merely another way of determining whether the trade secret owner has possession of the know-how comprising the trade secret."); Bone, *supra* note 112, at 252-58 (describing the emergence of trade secret law in the United States under a natural rights theory that follows generally the structure outlined in this Note).

Hughes mischaracterizes the process of removal. He implicitly asserts that removal of an idea or fact also removes the ability to independently produce it. See Hughes, *supra* note 15, at 314. Controlling access to the intangible good through secrecy does not allow others to appropriate it immediately, but it also does not keep others from independently discovering the same idea.

114. See generally Steven Cherenksy, Comment, *A Penny for Their Thoughts: Employee-Inventors, Preinvention Assignment Agreements, Property, and Personhood*, 81 CAL. L. REV. 595 (1993) (discussing the importance of such nondisclosure agreements).

115. But see Schaffner, *supra* note 17, at 1127 (claiming that Lockean theory is limited to property exclusive against the world or to a common exclusionary against no one).

Alternatively, one can view the secrecy requirement through the lens of the independent production principle. For an easily communicated intangible good, merely showing the good may be enough to transfer the good, as “some inventions ‘infect’ one immediately with knowledge of their workings.”<sup>116</sup> One result of such an immediate infection is that the person would not subsequently be able to independently produce the idea. As the independent production right is a requirement of Lockean theory, a laborer must not reveal an intangible good before a purchase agreement has been made or else he loses his property rights in that good.

Property rights in widely disseminated cultural goods are not tenable under Lockean theory because elements of a culture cannot be kept secret. For example, the right to describe one’s surroundings, an example used by Gordon, would fit into this category.<sup>117</sup> As advocated by Jeremy Waldron, where a privately held intangible good is “thrust out into the cultural world to impinge on the consciousness of all of us,” the owner could be seen as having abandoned the good into the public domain rather than having removed it from the common.<sup>118</sup>

The removal requirement also highlights an important tension in the state of nature. Labor mixing provides a right for laborers to exclude others from the good. This exclusion can be enforced by what Locke calls an “Inclosure”<sup>119</sup>—analogous to a wall or fence for tangible goods—instead of merely relying on others to obey the natural law. The waste prohibition, however, allows a rightful user to break through this enclosure in order to get at the wasting goods.<sup>120</sup> The tension lies in determining the appropriate strength of the enclosure. At one extreme, the owner’s creation of an impermeable enclosure eliminates the ability to enforce a violation of the waste prohibition. At the other extreme, a fair user who decimates the owner’s enclosure such that anyone can steal as much of the good as he wants can be seen as contributorily violating the owner’s property right in the good. Although the principles of the state of nature do not provide a clear way to resolve this tension, this tension should be reexamined in light of Part III, where the government as a single entity can internally balance the competing interests.

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116. Gordon, *supra* note 16, at 1582; *see also* Reese, *supra* note 17, at 720-23 (arguing that known inventions lessen the chance for actual independent production).

117. *See* Gordon, *supra* note 16, at 1556-58.

118. Waldron, *supra* note 6, at 883 (analogizing to the doctrine of trademarks becoming generic).

119. LOCKE, SECOND TREATISE, *supra* note 1, § 38.

120. *See id.*

## III. LOCKEAN FAIR USE UNDER A CIVIL GOVERNMENT

This Part addresses the societal transition to a civil government. Locke argues that the principle of majority consent largely replaces individual consent under a civil government. The shift to majority consent has important implications for the potential scope of the private property right under a civil government. Of the three independent principles that bind action in the state of nature, I argue in this Part that only the waste prohibition continues to bind a civil government. The state, therefore, takes over the duty to police violations of the waste prohibition, which it may accomplish in alternative ways that are not available in the state of nature, such as establishing a public domain.

This Part also compares a Lockean regime to current U.S. intellectual property theory and doctrine. The functional application of copyright fair use is similar in that fair use is an all-or-nothing privilege that inheres in individuals in both the Lockean regime and under U.S. copyright law. Differences are also demonstrated, including the absence of a patent fair use doctrine and a more limited scope of fair use under current U.S. copyright doctrines than would be provided under a Lockean regime. Finally, the moral implications of wasted intangible goods are considered in the drug patent context.

A. *The Transition to Civil Government*

Locke devotes a vast majority of the *Second Treatise* to a discussion of civil government.<sup>121</sup> Locke begins by claiming that expediency drives people together into civil governments<sup>122</sup> and that the consent of these people legitimates the governments.<sup>123</sup> Upon entering a civil government, they subject themselves to supreme power in the legislature,<sup>124</sup> which retains this power until individual members decide to leave the society or the government acts outside the bounds of its authority and the people as a whole revolt.<sup>125</sup>

Locke provided a number of principles to guide the legislature in pursuing lawmaking authorized by the natural law. The first set of requirements deals with the rulemaking power. Rules must be general,

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121. The discussion of the transition into civil government constitutes the bulk of chapters 7-19, as compared to the discussion of property, which is limited to chapter 5.

122. LOCKE, *SECOND TREATISE*, *supra* note 1, § 127.

123. *Id.* §§ 15, 22.

124. *Id.* §§ 149-150.

125. Compare *id.* §§ 149, 243 (explaining that supreme power is in the legislature), with *id.* §§ 211-221 (describing which actions by the government justify revolt and dissolution of the common government).

known by the community, and made by the legislative power.<sup>126</sup> The second set of requirements deals with the scope of the rulemaking power. The scope of the law is limited in that the law cannot contain more power than the parties had to give in the state of nature,<sup>127</sup> cannot take property without majority consent,<sup>128</sup> cannot harm the society,<sup>129</sup> and cannot constrain a person's freedom to act as she wishes in the absence of a prescribed rule.<sup>130</sup>

As the legislature remains bound by the natural law,<sup>131</sup> the major difference relating to trade in the state of nature and under civil government is the aggregation of consent. In the state of nature, consent is given from individual to individual, whereas under civil government, consent is given from the individual to the state, which may then act and compel individuals to act under a theory of majority consent. Although semantically the right to exclude remains—nobody “hath a right to take their substance, or any part of it from them, without their own consent”<sup>132</sup>—a civil government may act in a wide variety of ways that may limit the right to exclude because consent is redefined as majority consent<sup>133</sup> acting “only for the Publick Good.”<sup>134</sup>

Locke lists three reasons why groups of individuals transition from a state of nature into a civil government: a scarce common,<sup>135</sup> enhancement of the public good,<sup>136</sup> and, most importantly, enforcement of property rights.<sup>137</sup> In order to enforce a property right, one must be able to exclude and choose

126. *Id.* § 3.

127. *Id.* § 135.

128. *Id.* § 138.

129. *Id.* § 166.

130. *See id.* §§ 128-129.

131. *Id.* § 135 (declaring that the “Law of Nature stands as an Eternal Rule to all Men, Legislators as well as others”).

132. *Id.* § 138.

133. *Id.* § 140. Despite the tension between individual and majority consent, Locke strongly asserts the need to submit to majority consent. He argues that “[w]hen any number of Men have so consented to make one Community or Government, . . . the Majority have a Right to act and conclude the rest.” *Id.* § 95. This right is required because “that which acts any Community, being only the consent of the individuals of it, and it being necessary to that which is one body to move one way; it is necessary the Body should move that way whither the greater force carries it, which is the consent of the majority.” *Id.* § 96. If the right is not recognized, Locke argues, “where the majority cannot conclude the rest, there they cannot act as one Body, and consequently will be immediately dissolved again.” *Id.* § 98.

134. *Id.* § 3; *see also id.* §§ 88, 96, 140. The legislature is bound to act in the people's interest, in addition to acting within the confines of the natural law, because the members would not have entered into, or remain in, a society where they were going to be harmed. *See id.* §§ 137, 166.

135. *Id.* § 45 (claiming that when people obtain more goods through the use of a money system, the land becomes scarce and the people organize themselves together). This reason is unimportant when considering the nonrivalrous common of intangible goods.

136. *Id.* § 3.

137. *See, e.g., id.* § 124 (“The great and chief end . . . is the Preservation of their Property.”).

to exclude others.<sup>138</sup> Exclusion is protected by a natural right to punish a party who violates the natural law,<sup>139</sup> whether the violation occurs through ignorance of or ignoring the natural law.<sup>140</sup> The practical difficulties associated with enforcing one's own property rights against others do not confound the natural law but merely suggest a reason why men typically move out of the state of nature and into a civil government.<sup>141</sup>

The problem of maintaining exclusion is more pronounced for intangible goods, and thus the incentives for transitioning into a civil government are also more pronounced for owners of intangible goods. Many definitions of intangible goods qualify them as public goods, namely that they are nonrivalrous and that they are physically nonexcludable.<sup>142</sup> Hughes argues that intangible goods are nonexcludable in part because a person cannot be prevented from privately using an idea.<sup>143</sup> Even if exclusion can initially be maintained, the framework must also prevent arbitrage from the persons who obtain a fair use right or who pay a lower price to those who are obligated to pay a higher rate.<sup>144</sup> Exclusion can be enforced through technical means, such as digital-rights-management provisions, or through legal means, such as statutes like the No Electronic Theft Act, which imposes criminal sanctions for large-scale violations of intellectual property rights.<sup>145</sup> In addition to establishing an impartial arbiter, a civil government may also be able to establish clear categories of

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138. For example, Locke defines property as that which cannot be taken from a man without his consent. *Id.* § 193; see also WALDRON, *supra* note 17, at 158-60 (arguing that Locke maintains a clear distinction throughout the *Second Treatise* between "property in" items and items that are the "property of" a person, with the second allowing for exclusion).

139. Compare LOCKE, *SECOND TREATISE*, *supra* note 1, §§ 7-11 (allowing for full restitution and preventing offenses), with *id.* § 126 (explaining that men will often lack the power to enforce their own property rights).

140. See *id.* § 124.

141. See *id.* §§ 13, 123-127.

142. See, e.g., Lacey, *supra* note 17, at 1553-55. Mechanisms are evolving, however, for the protection of intangible goods, such as encryption and password requirements that may allow greater enforceability than that which exists for tangible goods. Benkler, *supra* note 90, at 2065.

143. Hughes, *supra* note 15, at 315-16 (arguing that "thought-police" would be required to make intangible goods fully excludable, but that these thought-police are technologically infeasible and would violate privacy rights); see also Moore, *Intangible Property*, *supra* note 17, at 371-75 (discussing privacy considerations).

144. The arbitrage problem is likely to be less pronounced for low-value uses due to the lack of any market in which to conduct the arbitrage. See Maureen A. O'Rourke, *Toward a Doctrine of Fair Use in Patent Law*, 100 COLUM. L. REV. 1177, 1188-89 (2000).

145. No Electronic Theft (NET) Act, Pub. L. No. 105-147, 111 Stat. 2678 (1997) (codified as amended at 17 U.S.C. §§ 101-803 (Supp. IV 1998) and at 18 U.S.C. § 2319 (2000)); see also Karen J. Bernstein, *The No Electronic Theft Act: The Music Industry's New Instrument in the Fight Against Internet Piracy*, 7 UCLA ENT. L. REV. 325 (2000) (discussing in detail the evolution of the willful infringement requirement under the statute).



individuals or uses that may act as proxies for permissible and impermissible intrusions on property rights.<sup>146</sup>

### B. *The Existence and Scope of the Fair Use Right*

If society has transitioned out of the state of nature and into a government,<sup>147</sup> what can Lockean theories of civil government teach us about the intricacies of intellectual property theory? That a government should act “for the publick good,” or even “only for the publick good,”<sup>148</sup> is a tautology so thin that it provides little to no help in determining the actual scope of intellectual property rights. This deflating question may lead to problematic conclusions. Gordon’s Lockean theory of intellectual property is incorrect because she does not carefully distinguish limitations and opportunities that are different between the state of nature and a civil government.<sup>149</sup> Other, more cynical arguments suggest that Locke was mostly unconcerned with his natural rights theory of property, and thus his deontological justifications for property should be ignored.<sup>150</sup>

As described earlier,<sup>151</sup> Lockean theory contains three independent principles from the state of nature that could potentially continue to limit property rights in a civil government: the independent production principle, the no harm prohibition, and the waste prohibition. The independent production principle is intimately tied to individual consent. Even though autonomy cannot be alienated fully,<sup>152</sup> individual consent in the state of nature can largely be replaced by majority consent in a civil government.

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146. Governmental regulation may take the form of traditional laws—“East Coast Code”—or technical requirements, such as those embedded into the architecture of the Internet—“West Coast Code.” LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* 53-54 (1999).

147. The question of whether the interactions of nation-states constitute a state of nature, or whether, through treaty or custom, the state of nature no longer exists is beyond the scope of this Note.

148. LOCKE, *SECOND TREATISE*, *supra* note 1, § 3.

149. See Friedman, *supra* note 17, at 165 (“Gordon focuses on Locke’s deontological state-of-nature theory without considering that Locke liquidates natural property rights when civil society is founded.”). Gordon bases her ability to impose the scope of property developed in the state of nature to a civil government on Locke’s claim that the natural law must be fulfilled at all times. Gordon, *supra* note 16, at 1554-55. Gordon argues that other than rights of enforcement, the “individual retains virtually all the other rights and duties of the law of nature in civil society.” *Id.* As described previously, a vital problem with Gordon’s argument is that it conflates the public domain and the Lockean common.

Wilf does not conflate the two societal systems, arguing that different property rules are obtained in the state of nature and under civil government. Wilf, *supra* note 106, at 31-32 (concluding that no intellectual property is cognizable under the state of nature).

150. See, e.g., Friedman, *supra* note 17, at 164 (“Locke’s property theory is a digression made necessary only to challenge the absolutist politics advanced by Filmer. Hence it should not surprise us that Locke is willing to undo private property rights once they have served his polemical purpose . . .”).

151. See *supra* notes 22-29 and accompanying text.

152. See LOCKE, *SECOND TREATISE*, *supra* note 1, § 23 (arguing that natural law forbids a man, even by consent, to enslave himself).

This alienability suggests that the independent production principle and the Lockean fair use right to culture are largely inapplicable under a civil government. The no harm principle is also largely alienable under majority consent in a civil government. Therefore, Locke can argue that legislative actions that impose benefits on some individuals and harms on other individuals are legitimate because the individual harmed by one statute is benefited by other statutes, such that the overall effect on the individual is a benefit.<sup>153</sup> So long as the government generally acts in a way that benefits society as a whole, the no harm principle is not violated.

The consent given from the governed to a civil government does not, however, affect the applicability of the waste prohibition. In other words, a private action or governmental regulation that violates the waste prohibition in the state of nature will still violate the natural law under a civil government and is null under Lockean theory.<sup>154</sup> As an owner does not have a right to violate the waste prohibition in the state of nature, his consent cannot justify such a violation under a civil government. Even consent by those who enforce the waste prohibition in the state of nature cannot alienate this right under a civil government. In the state of nature, individuals enforced the waste prohibition by taking the spoiling good, but under a civil government, the government itself enforces the natural law.<sup>155</sup> This suggests that the state has a duty to determine what constitutes a violation of the waste prohibition and “punish” such violations.

In addition to increasing enforceability of property rights in intangible goods, a transition to civil government opens up opportunities for alternative ways of avoiding a violation of the waste prohibition. An important implication is that a government could use its power of majority consent to establish a public domain—a set of developed intangible goods that are available freely to all potential users. There are a number of ways in which the government could establish a public domain, including the current U.S. system whereby the government provides enforcement of intellectual property rights in exchange for the mandatory donation of the intangible good to the public domain after a set period of time. Recently, a number of alternate proposals for establishing more universal access to intangible goods using government-provided prizes have been offered.

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153. This argument can be pieced together from the following. First, Locke claims that unless we allow the consent of the majority to bind all individuals in civil government, the “variety of Opinions, and contrariety of Interests” will limit the ability of the government to survive. *Id.* §§ 95-99. Second, Locke requires that a civil government must provide enough benefits to propel a man to “quit the freedom of the state of Nature.” *Id.* § 137; see also Moore, *Intangible Property*, *supra* note 17, at 369-71 (discussing the appropriate baseline of comparison).

154. See LOCKE, SECOND TREATISE, *supra* note 1, § 135.

155. See *id.* § 87.

Although implementing the policies may be difficult,<sup>156</sup> these proposals can be used to highlight the different methods available to a civil government in satisfying the waste prohibition. First, consider an initial proposal that the government's eminent domain power could be used to "take" the property rights in an intangible good for just compensation.<sup>157</sup> The government would thus use general tax revenue in order to purchase the intangible good for the free use of society as a whole. This idea was later spun in a somewhat different fashion, suggesting that it would be more efficient to provide rights-holders with an option either to keep the intellectual property rights or to sell the government the rights to the good for an amount that can be determined either *ex ante*, as with the initial proposal, or could be determined *ex post* by correlating sales incorporating the intangible good to a prize function.<sup>158</sup> Finally, one might use the government funds to facilitate purchases by low-value users, providing subsidies to facilitate purchase at the prevailing market price.<sup>159</sup>

### C. *Application to U.S. Intellectual Property Theory and Doctrine*

#### 1. *Copyright Fair Use and the DMCA*

The fair use doctrine in U.S. copyright law is similar in function and economic justification to the Lockean fair use right developed in this Note. A copyright is obtained in "original works of authorship fixed in any tangible medium of expression"<sup>160</sup> and provides broad-reaching property rights to copyright holders, including the ability to exclude others from copying the work, distributing copies, or performing the work publicly.<sup>161</sup> Under copyright law, the property rights are enforceable through preliminary and permanent injunctions, as well as through statutory and actual damages.<sup>162</sup>

The functional application of the fair use doctrine in copyright law mirrors Lockean principles. The scope of an owner's copyright is limited by

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156. For an excellent overview and critique of existing patent prize proposals, see Michael Abramowicz, *Perfecting Patent Prizes*, 56 VAND. L. REV. (forthcoming 2003).

157. Robert C. Guell & Marvin Fischbaum, *Toward Allocative Efficiency in the Prescription Drug Industry*, 73 MILBANK Q. 213 (1995).

158. Steven Shavell & Tanguy van Ypersele, *Rewards Versus Intellectual Property Rights*, 44 J.L. & ECON. 525 (2001).

159. See Douglas Gary Lichtman, *Pricing Prozac: Why the Government Should Subsidize the Purchase of Patented Pharmaceuticals*, 11 HARV. J.L. & TECH. 123 (1997).

160. 17 U.S.C. § 102 (2000). Works that do not exhibit sufficient originality do not get copyright protection. *Id.* Examples of these types of works include mere data compilations, *Feist Publ'ns v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991), short phrases and slogans, 37 C.F.R. § 202.1 (2002), and scenes à faire, *Williams v. Crichton*, 84 F.3d 581 (2d Cir. 1996).

161. 17 U.S.C. § 102.

162. *Id.* §§ 502-504.

section 107, which establishes a four-factor test to determine whether a use is a fair use.<sup>163</sup> Fair use is a “privilege in others than the owner of the copyright to use the copyrighted material in a reasonable manner without his consent.”<sup>164</sup> The functional result of the fair use privilege is in most cases an “all-or-nothing choice”<sup>165</sup> between an injunction against the use or use without compensation by the infringing party. The application of the fair use doctrine comports with the Lockean application of the waste prohibition to monopolist pricing in a single-price market for an intangible good in two significant ways. First, the ability to transcend the broad property rights of the owner of the intangible good is centered in specific individuals rather than in specific intangible goods. The fair use doctrine allows only some individuals the right to use the copyrighted material for free, while everyone else must pay a fee. Similarly, the Lockean waste prohibition grants a right of free use to only some individuals and not to others. Second, the “all-or-nothing” dichotomy of fair use law mirrors the Lockean waste prohibition because a violation of the waste prohibition produces a total loss of property rights—i.e., fair use—in that specific intangible unit.

Although a variety of justifications for the fair use doctrine exist, such as promoting First Amendment considerations,<sup>166</sup> this Subsection focuses on the economic element of the theoretical framework for the fair use doctrine based on potential market failures associated with transaction costs.<sup>167</sup> The framework for economic considerations was established by

163. *Id.* § 107. The four factors are:

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

*Id.*

164. *Harper & Row, Publishers v. Nation Enters.*, 471 U.S. 539, 549 (1985) (citation omitted).

165. Wendy I. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 COLUM. L. REV. 1600, 1623 (1982). Some courts have even suggested that compulsory licensing regimes might be appropriate. *Id.* at 1623-24 & nn.127-28.

166. See, e.g., Jed Rubenfeld, *The Freedom of Imagination: Copyright's Constitutionality*, 112 YALE L.J. 1, 3-5 (2002) (arguing that current copyright doctrine's “insulation from the First Amendment” should be reconsidered using the “freedom of imagination” as a framework). *But see Harper & Row*, 471 U.S. at 558-60 (construing First Amendment rights to fair use narrowly). See generally Zimmerman, *supra* note 3 (arguing for a greater First Amendment limitation on copyright law).

167. The parody exception allows users to “conjure up” a copyrighted work in order to comment or criticize the original. See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 588 (1994). Although market-related, the economic justification for parody as a fair use right is different than the justification I am considering here. This Note largely considers the problem of transaction costs, whereas the parody exception exists largely because the owner of the property

Gordon,<sup>168</sup> has been expanded upon by others, such as Maureen O'Rourke,<sup>169</sup> and was important in congressional consideration of the 1976 Copyright Act.<sup>170</sup> Gordon argues that the fair use doctrine is a judicial response to market failures, some of which are created by transaction costs.<sup>171</sup> Working from first principles, Gordon's fair use theory begins with basic market assumptions including the absence of transaction costs. Granting a copyright allows the establishment of markets for a wide array of intangible goods and their uses.<sup>172</sup> Transaction costs may, however, limit the ability of buyers to engage with sellers who would be willing to purchase the good at above the marginal cost of production (which marginal cost is zero in the case of markets for intangible goods). A complete market failure occurs when there is no exchange of an intangible good for a specific use—an intangible unit—when there are buyers who value the good at above the cost of copying. In such a case, fair use by the potential buyer is a Pareto superior move because the potential buyer is able to gain utility without diminishing any monetary reward that the seller could have gained.<sup>173</sup>

Gordon's theoretical justification for the fair use doctrine largely coheres with the Lockean description in this Note. The easy case for comparison is complete market failure, such as the absence of a market for an out-of-print book. The failure of the market to effectuate socially efficient uses of out-of-print books by scholars and others has often motivated courts to provide fair use rights.<sup>174</sup> This is also an easy case for the Lockean waste prohibition. Due to the waste prohibition, the laborer cannot maintain property rights in the intangible units of the book that she does not sell. The complete lack of a market is by its nature a complete violation of the waste prohibition and consists of a total abrogation of rights in the intangible good (except as to the single intangible unit used by the laborer herself).

The Lockean waste prohibition, however, creates a fair use right that is much more robust than the current fair use doctrine. Although Gordon includes the market assumption of competition, she then ignores the

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has incentives not to license parodies that are not aligned with society's value in obtaining the parodies. See Gordon, *supra* note 165, at 1633.

168. Gordon, *supra* note 165 (arguing that fair use should be allowed where market failures prevent efficient trading).

169. O'Rourke, *supra* note 144, at 1177, 1180, 1188-89 (arguing that fair use is socially desirable in some cases of market failures).

170. Gordon, *supra* note 165, at 1603.

171. *Id.* at 1602-14.

172. *Id.* at 1612-13.

173. *Id.* at 1618-22.

174. See, e.g., *Triangle Publ'ns v. Knight-Ridder Newspapers*, 626 F.2d 1171, 1176 n.14 (5th Cir. 1980) ("[I]f the copyrighted work is out of print and cannot be purchased, a user may be more likely to prevail on a fair use defense.").

implications of the fundamental nature of granting a copyright on this assumption. The grant of an intellectual property right in an intangible good limits competition and is frequently referred to as a monopoly grant that is acceptable only to the extent that it is necessary to provide ex ante incentives for intangible good producers. Stated another way, monopoly pricing above the efficient level is itself a market failure.<sup>175</sup> When a monopolist seller establishes a price, she divides the world into three groups: those who value the good at or above the market price, those who value the good below the market price but at or above zero, and those who put a negative value on the good. Due to the nonrivalry of intangible goods and Locke's waste prohibition, the seller loses the right to exclude all those who are in the latter two groups under a Lockean regime, but not necessarily under U.S. copyright law. This suggests that for the U.S. copyright law to align itself with Lockean principles would require a much more expansive fair use right.

Lockean analysis also provides an interesting perspective on the relatively recent anticircumvention measures enacted by the Digital Millennium Copyright Act,<sup>176</sup> specifically the provisions codified into section 1201 of the Copyright Act.<sup>177</sup> These provisions prohibit actions taken to circumvent access controls or other technological measures that protect a copyrighted work and provide relief independent of infringement actions.<sup>178</sup> Pamela Samuelson described the potential ramifications of such a privatized regime this way: "If works are protected against unauthorized copying by means of technology and contract law, there may be nothing for copyright to do . . ."<sup>179</sup> The government holds a natural law duty both to protect private property rights and to police violations of the waste prohibition. One-sided government enforcement of private access controls that leaves the government with "nothing . . . to do" would represent a total abrogation of the government's duty to uphold the waste prohibition.

The DMCA may be viewed as an attempt by the government to reconcile the competing interests of self-enforcement and self-help for fair use discussed earlier.<sup>180</sup> The increasing digitalization of intangible goods creates an increased ability to erect enclosures that are unaccommodating to

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175. This market failure may be a part of the category of "intermediate market failures," which Gordon defines as cases "where the market cannot be relied upon to generate all desirable exchanges, but where some such transactions would be possible." See Gordon, *supra* note 165, at 1618-22.

176. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.); see also Jane C. Ginsburg, *Copyright Legislation for the "Digital Millennium,"* 23 COLUM.-VLA J.L. & ARTS 137 (1999) (detailing the evolution and structure of the DMCA).

177. 17 U.S.C. § 1201 (2000).

178. See *id.*

179. Samuelson, *supra* note 46, at 117, 125.

180. See *supra* text accompanying notes 119-120.

fair use but also enables the laborer to price-discriminate in a more fine-grained manner, thereby allowing laborers to more fully avoid violating the waste prohibition. First considering low-value users, increasing digitalization enables sellers to offer product differentiation—second-degree price discrimination—on a much larger scale than ever before. In Jessica Litman's words, "Until very recently, a copyright holder had no means to instruct a book that it should sprout wings and fly back to its publisher after it had been read  $N$  times . . . ."<sup>181</sup> Increased digitalization also offers broad opportunities for third-degree price discrimination. An example of this is Amazon.com's temporary use of consumer information, such as geography, previous purchases, and past spending patterns to price-discriminate among consumers at its site.<sup>182</sup> In addition to the privacy implications such a regime entails, both second- and third-degree price discrimination also include some measure of lumpiness. Therefore, provisions that exempt additional classes of individuals from the anticircumvention prohibition are necessary from a Lockean perspective. Although DMCA provisions such as sections 1008 and 1201(a)(2) contain limited exemptions, they likely do not include all those that might be legitimate or required under Lockean theory.<sup>183</sup> The government would, therefore, need to balance its obligations under the natural law much more carefully to prevent violations of the waste prohibition for low-value users.

Low-value uses represent a much larger problem for the legitimacy of the DMCA anticircumvention provisions. The relatively large set of potential uses to which any intangible good may be put will far outstrip the newly enhanced ability to market different types of uses. As the increased barriers that prevent arbitrage and illicit copying of a good are also likely to impair significantly these legitimate uses, a potentially large violation of the waste prohibition will result from the enactment of anticircumvention provisions. This more seriously calls into question the legitimacy of the DMCA under a Lockean regime.

## 2. *Fair Use for Drug Patents*

The patent regime that currently exists in the United States is not cognizable in a Lockean state of nature but may be allowable with modification under a civil government. An impermissible aspect of such a patent regime in the state of nature is the right given to owners to prohibit

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181. Jessica Litman, *Reforming Information Law in Copyright's Image*, 22 U. DAYTON L. REV. 587, 601 (1997). The deregulated airline industry is often cited as the primary example in recent economic history of extensive price discrimination, using product characteristics such as advance purchase, nonrefundability, and Saturday night stays to differentiate between high-value and low-value users. See Weiss & Mehrotra, *supra* note 84, ¶¶ 5-9.

182. Weiss & Mehrotra, *supra* note 84, ¶¶ 1-4, 10-14.

183. See 17 U.S.C. §§ 1008, 1201.

others from independently producing the intangible good.<sup>184</sup> Although the independent production principle is a requirement in the state of nature, under a civil government the independent production right may be alienated through majority consent.

A transition to a civil government does not, however, alter the waste prohibition's applicability because it does not operate on the consent of the laborer or the user. Therefore, a fair use right must be provided in both the state of nature and under a civil government. While the U.S. system allows for a fair use right in copyright, no coherent fair use right is allowed in patents. Although doctrines such as the experimental use provision may create a limited fair use right in certain situations,<sup>185</sup> a more refined patent fair use doctrine would be demanded by Lockean theory.

Although it is beyond the scope of this Note to operationalize such a patent fair use right, the currently intense drug patent debate provides a stark example of the morally compelling nature of such a right.<sup>186</sup> Even though Locke argues that the state of nature is a state of equality,<sup>187</sup> this equality is limited to equality of opportunity, not equality of wealth or ability.<sup>188</sup> The waste prohibition, however, does establish that low-value users have a fair use right to the intangible goods, which may import some measure of redistributive equity, because one characteristic that will tend to identify a low-value user is socioeconomic status.

The existence of a large class of low-value users can be substantiated by the numerous claims that have been made that many people in developing countries are unable to afford drugs at the price set by the patent holders. Regarding the AIDS pandemic in China, a local doctor stated, "I know how to treat these people, but I don't have the drugs, and the patients

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184. See Hettinger, *supra* note 17, at 44 (finding that patents "clearly run afoul" of Lockean principles due to an improper restriction on independent production). Hettinger's analysis is flawed, however, because he does not consider important differences between the state of nature and civil government.

185. O'Rourke, *supra* note 144, at 1192-93. Although not relying on a Lockean perspective, O'Rourke has argued that a patent fair use doctrine should be developed because patents may be subject to the same market defects as those that create the need for copyright fair use. *Id.* at 1187. She suggests a five-factor test to operationalize a patent fair use doctrine. These factors incorporate social ideals that do not directly map onto the requirements of the waste prohibition, but might be a good start for determining how to operationalize a Lockean fair use right. She finds the following relevant to fair use:

(i) the nature of the advance represented by the infringement; (ii) the purpose of the infringing use; (iii) the nature and strength of the market failure that prevents a license from being concluded; (iv) the impact of the use on the patentee's incentives and overall social welfare; and (v) the nature of the patented work.

*Id.* at 1205.

186. Another way in which a Lockean right to fair use of drug patents might be sustainable is through Locke's subsistence proviso. For a description of the subsistence proviso, see *supra* note 37.

187. LOCKE, SECOND TREATISE, *supra* note 1, § 4.

188. See *id.* §§ 34-36, 47-48; Sterk, *supra* note 17, at 1234 (describing Lockean theory as an "equality-of-opportunity theory").



can't pay."<sup>189</sup> A Nigerian representative has argued that his country has little money to help its three million people with HIV and so turns to Indian-made generic drugs that cost substantially less.<sup>190</sup> The concerns transcend the AIDS issue, as new malaria drugs create the ability to save hundreds of thousands of patients, but the cost of \$1.30 per dose is sufficiently higher than the existing treatment's cost of \$0.25 per dose that African health ministries continue to prescribe the cheaper but less effective treatment.<sup>191</sup> Jean Lanjouw has provided additional empirical support for the existence of a large class of low-value users, showing that the assertion of monopoly power provides little profits to the patent holder but creates a great loss to those who would be able to purchase the good at greater than the cost of producing the drug.<sup>192</sup>

Establishing the existence of low-value users also establishes a Lockean fair use right for those users. To the extent that patent holders are unable or unwilling to sell the patented drugs at affordable prices, these low-value users have a Lockean fair use right. Additionally, although affordable drug pricing is admittedly not a full solution to the problem, the developing countries' moral claim asserts that the patent drug issue is not one of incentives, but of rich against poor. An Ethiopian representative claimed that "[p]atents are a system to help the most powerful people who need the least protection, even while millions of poor AIDS patients are dying."<sup>193</sup> This claim seems particularly incisive after the United States government's near abrogation of Bayer's patent rights in the anti-anthrax drug Cipro after the terrorist attacks in late 2001.<sup>194</sup>

#### IV. CONCLUSION

This Note has applied the principles set forth in Locke's *Two Treatises of Government* to determine the existence and scope of property rights in intangible goods. To this end, the *Treatises* have been treated as an authoritative text, but American intellectual property law has tended to

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189. Peter S. Goodman, *In China, AIDS Crisis Is at the Mercy of Global Commerce*, WASH. POST, Dec. 5, 2002, at A1.

190. Sebastian Mallaby, Editorial, *Talking Cadillacs to Rickshaw Riders*, WASH. POST, Oct. 7, 2002, at A19.

191. Karl Vick, *Aid Group: Malaria Drug Need Is Ignored: Africans Still Rely on Inferior Therapy*, WASH. POST, Feb. 14, 2002, at A30.

192. Jean O. Lanjouw, A Patent Policy Proposal for Global Diseases (Apr. 2001), at [http://econ.worldbank.org/files/1733\\_lanjouw.pdf](http://econ.worldbank.org/files/1733_lanjouw.pdf). Although gaining fair use to drugs produced for developed nations benefits developing nations, there is almost no investment in treating diseases that primarily afflict developing nations. *Id.*

193. Mallaby, *supra* note 190.

194. Shankar Vedantam & Terence Chea, *Drug Firm Plays Defense in Anthrax Scare: For Now, U.S. Declines To Suspend Bayer's Patent and Authorize Generic Cipro*, WASH. POST, Oct. 21, 2001, at A14.

reject the natural law framework. Instead, the United States has adopted a utilitarian framework, focusing on the incentives that must be given to laborers to produce intangible goods. What, then, can a Lockean theory of property in intangible goods teach us about U.S. intellectual property?

First, the analysis demonstrates the need to consider carefully the special characteristics of intangible goods that make them so sharply different from tangible goods. The waste prohibition set out by Locke quickly becomes a nonissue for tangible goods when a money system has been introduced. As I have shown, however, this result changes dramatically when one considers the nonrivalrous nature of intangible goods. That a prominent theory justifying property rights produces such different conclusions when one considers the differences between tangible and intangible goods suggests that one must take care to consider the special characteristics of intangible goods when making intellectual property policy decisions.

Second, although U.S. doctrine has disavowed use of natural law concepts in determining the scope of intellectual property rights, proponents often use natural law arguments to justify expansion of intellectual property rights that should be balanced against the natural law arguments for the fair use right described in this Note. Take, for example, the RIAA's use of natural-law-type arguments to sway policy decisions regarding peer-to-peer music sharing, quoting Art Alexakis of Everclear as saying, "I think the fact that Napster is stealing recorded music is something that we have to stop. . . . That's the way I look at it. It's wrong. It's inherently wrong. It's stealing," and Alanis Morissette as claiming that the artist "should be the person who's ultimately in a position to decide when, where, and how something should be shared with whomever they choose to share it with."<sup>195</sup> Alexakis's claim against "stealing" and Morissette's claim for artistic control rights are natural law arguments rather than arguments about the socially optimal level of property rights. To the extent that they are used to provide additional justification for the existing regime of strong property rights for intangible goods owners or are presented as justification for additional rights, the Lockean theory developed in this Note can be used as a counterargument. In fact, the use of natural law arguments may work against marketers of intangible goods because the extensive nature of the Lockean waste prohibition may limit intellectual property rights even more than the incentives-based system currently in place, with one example being a mandatory patent fair use right.

Finally, the waste prohibition has moral appeal that is similar to the moral appeal that supports Locke's theory of private property rights. There

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195. Recording Indus. Ass'n of Am., *The Napster Lawsuit*, at <http://www.riaa.org/Napster.cfm> (last visited Oct. 29, 2002).

is something intuitively appealing about giving a property right in controlling a good to the creator of that good, especially where no others have been harmed by this creation. By that same token, it is intuitively appealing to provide a fair use right where the owner is letting the good spoil and waste, especially if it can be done without harming the owner. Just as one might find the rock stars' argument that they ought to be compensated compelling, one would find compelling the claims by Third World governments that perfectly exclusive private property rights are inappropriate when the resulting waste—the deadweight loss—is actual human suffering and death.

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